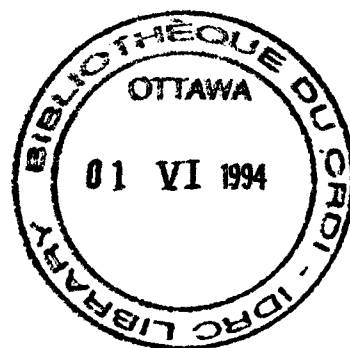


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EVALUATION OF THE CARIBBEAN PROGRAM
IDRC INFORMATION SCIENCES DIVISION
1970 - 1989

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EXECUTIVE SUMMARY

SECTIONS 1-4 THE EVALUATION

In order to determine the success of the Information Sciences's Division's program in the Caribbean, the consultant defined and executed a methodology for evaluating data obtained from the Division Management, the Program Officers. This evaluation of the 34 Caribbean projects, used the structured interview method to gather data on the impact of the projects and systems on the region in general, on the particular project environments and on the direct and indirect beneficiaries of the systems' services. Information was therefore gathered from the project leaders, the users within the host institutions, and other members of the target audiences, as well as potential users who fall within the scope of the systems' services.

SUMMARY OF SURVEY FINDINGS

Of the 35 activities supported, The systems and services were found to have impacted significantly on the national and regional information infrastructure, on the training of information personnel, and on the use of information by decision-makers, and policy-makers, the main target audience.

SECTION 5 NATIONAL INFORMATION SYSTEMS

Of four projects which supported national information systems in Jamaica, Dominica, and Barbados, the Jamaican system is now based on a coordinated national information infrastructure, for which a public education campaign is now being prepared. Development of Dominica's system initially required human resources development, and that country now continues to develop its national information system. Barbados on the other hand was not able to truly implement a national information network, as anticipated.

SECTION 6 SOCIO-ECONOMIC INFORMATION

Several projects within the socio-economic area range from the development of CARISPLAN, as a regional system, linking English, Spanish, and French-speaking Caribbean countries to the national and sub-regional system INFONET. The support of the Eastern Caribbean Debt Management Recording System, and the Land Registry Recording System, has also strengthened the ability of systems in the Caribbean to directly support the needs of users in their daily activities.

SECTION 7 THE ENVIRONMENT

The project for Remote Sensing of Land Use in the Dominican

Republic also enabled researchers of the Universidad Catolica Madre y Maestra to observe and analyze the changes in land use patterns in the North West Region of the Dominican Republic, and to subsequently provide this information to several groups in the community including peasant farmers.

SECTION 8

AGRICULTURAL DEVELOPMENT

Agricultural development, a major requirement in this region, has received information support through three regional and two national projects. CAGRIS, and the Market Information System established by the Association for Caribbean Transformation (ACT) have contributed bibliographic as well as financial information to support the production and marketing processes. ACT's system broke new ground and has provided a tested methodology for a full-fledged regional information system on agricultural marketing and production.

SECTION 9

INDUSTRIAL DEVELOPMENT

The projects for industrial information have supported the development of systems for Trade, Technology transfer, Energy, and Patent Information, and have encouraged the availability of more innovative information services to complement the conventional products and services.

SECTION 10

CONCLUSIONS

The existing state of information infrastructure points to several activities in the Caribbean, which would not have been possible with only local resources. The support from the Centre has also facilitated the development of pilot projects, such as the Caribbean Trade Information System which have been subsequently supported by other agencies such as UNDP.

IMPLICATIONS FOR THE FUTURE

Future work in the Caribbean is expected to be within the framework of the Regional Information System Strategy to the year 2000, and to take into consideration, the increasing roles of telematics, marketing of information systems, further development of the agricultural information systems and services, particularly to the farming community, and the coordinating functions of the CARICOM Secretariat, the United Nations Economic Commission for Latin America and the Caribbean, and the Organization of Eastern Caribbean States Secretariat.

OBJECTIVES OF THE EVALUATION

The Pearson report, Partners in Development of 1969 recognized that neither political independence, foreign aid nor industrialization provide adequate answers to the problems of underdevelopment, and that new approaches including indigenous research have to be taken. IDRC was therefore expected to be a dynamic element in Canada's contribution to the global struggle, supporting indigenous research in the developing world, in an effort to increase the capacity of the peoples of these countries to be able to support their own development activities.

Information services based on relevant research and previous experiences, provide support for decision making by policy makers and planners, and help to make indigenous research results more readily available to this group.

These capabilities are particularly required in small state economies where the activities of policy makers and planners require decisions on a wide range of issues, without the necessary personnel to do research, briefings and other information support activities.

The socio-economic situation in the Caribbean indicates the need for such information services. This region of approximately 20 million, is composed of several small-state economies, whose decision makers require the support of active information services to help to ensure that the knowledge available in or accessible to the region can be tapped in support of weighing decisions and solving the problems of all levels of decision makers, including the ultimate beneficiaries, the final implementors of these decisions.

IDRC'S Information Sciences Division has provided support for projects in the Caribbean since the early seventies, initially funding discrete activities for the collection and distribution of bibliographic data on research and other documented information relevant to the region. Examples of these are Bibliography on Family Planning in Jamaica, and the Select Bibliography of Education in the Commonwealth Caribbean which were produced by departments of the University of the West Indies in 1973 and 1975 respectively.

As the Caribbean developed its regional thrust in the mid-

seventies, IDRC also supported the development of regionally related information systems, the planning and development of the CARICOM Bibliography and a meeting of information specialists, and social science researchers in 1977, which was funded at the request of the Institute of Social and Economic Research of the University of the West Indies. This meeting can be said to have placed the initial focus on Information for Development in the region, and to have laid the foundation for subsequent regional information systems which have been developed in priority areas over the past decade.

The present evaluation is aimed at determining the effect of IDRC's support for the information systems and services under study, and their impact on the target audiences. It also seeks to determine if the Information Sciences Division's program has worked in accordance with the IDRC Act of the Parliament of Canada which requires the Centre:

'To initiate, encourage, support and conduct research into the problems of developing regions of the world, into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of these regions'

and to assist recipients to eventually become self sufficient.

This self sufficiency involves increasing the ability of the recipients to use methods, techniques, and technologies plus the development of the systems or services as part of the national information infrastructure.

The objectives of the Information Sciences Division are in summary:

To improve systems, services and tools for managing and using information relevant to development research and change

To build indigenous capacity within developing countries for the effective management and application of information for development

To foster cooperation and coordination in development research through information-sharing

and the accomplishment of these objectives is expected to provide

"access to scientific, technological and other types of information with application of this information to the solution of development problems " - IDRC ISD Program and Policy Review

The current evaluation exercise has sought to gather information as a basis for assessment of the effects and progress of the ISD Caribbean program. It therefore has sought to determine:

If the objectives of the Information Sciences Division's program in the Caribbean have been successfully achieved and at what cost;

If the specific project objectives have been or are being met;

The impact of the information systems and services on the beneficiaries or target audiences;

Whether there are any identifiable gaps which can be addressed by modifying or enhancing existing information systems;

and

to develop a "check list" of issues / priorities to be considered by the donor community as future information activities to be undertaken in the region.

THE EVALUATION METHODOLOGY

In accordance with the terms of reference, the evaluation was divided into the following parts:

Determination of the objective of IDRC's Information Sciences Division, in supporting the projects;

Preparation of the relevant data gathering instruments;

Administration of the instruments;

Preparation of the final report.

THE OBJECTIVES OF THE INFORMATION SCIENCES DIVISION (ISD) Review and study of background materials

The statements of the Division's Program of Work and Budget, which were examined for the period 1981-1988-89, were used to determine the areas in which ISD had planned to work, and the type of information systems and services which it had expected to support. Other IDRC publications documents such as With Our Own Hands which documented the philosophy of the Information Sciences Division and of the Centre, were also examined to determine the appropriate direction of the projects and information systems and services in the Caribbean. The Regional Information System Strategy for the Caribbean to the year 2000, and earlier evaluations of the DEVSIS-type systems, and of the Latin American Information Networks, were used to provide a basis for the preparation of the evaluation instruments.

The summaries of the projects under review were also used during the evaluation exercise as a means of determining the stated objectives, and the activities which should have been undertaken, and subsequently were used as the basis of discussion with the project leaders, of specific objectives, and the related project activities.

PREPARATION OF THE DATA GATHERING INSTRUMENTS

The questionnaire which is appended as Annex VI, sought, in the main, to elicit information from the project leaders and managers or administrators of the host institutions, as well as from users and potential users of the information systems and services supported by IDRC. It therefore covered the areas of :

PROJECT DEVELOPMENT
PROJECT MONITORING
PROJECT ACTIVITIES / EXECUTION
USE OF THE SYSTEMS
PROMOTION OF THE SYSTEMS
PROJECT / SYSTEM OUTPUTS AND SERVICES
SUSTAINABILITY
EVALUATION OF THE SYSTEMS AND SERVICES
IMPACT
BUILDING OF INDIGENOUS CAPACITY

ADMINISTRATION OF THE QUESTIONNAIRE

All 34 projects were to have been included in the data gathering exercise, and it was therefore intended that visits should be paid to all the project sites, and that all project leaders, and managers of the institutions should be interviewed. This would have required visits to the 12 countries in which these projects are based; however, for logistical reasons, it was not possible to include Cuba, and Haiti in the travel schedule.

Copies of the questionnaire were sent in advance to one of the project leaders in each country, and were received by most interviewees in advance of the mission, so that there was a clear understanding of the focus of the evaluation, but the actual completion of the answers was done by the consultant during the discussions with the project leaders, managers or users.

As the projects were mainly for the development of information systems, interviews with end users were also planned to provide a record of the experiences of the users attached to the host institutions, as well as users who might be less directly served. In evaluating the projects which were expected to provide an ongoing information service, users and potential users were also interviewed. Some projects which have only been approved in the past three months or less such as the project for technology evaluation with the Caribbean Industrial Research Institute, or that for development for the Documentation and Data Centre with the University of the West Indies Consortium Graduate School and the Institute for Social and Economic Research, or others such as the decision support system of the Eastern Caribbean Central Bank, which can only be used when all the data has been consolidated, were not included in the second stage of the data gathering exercise. Research projects such as the Creole Discourse exercise were not included in the analysis of users' impressions.

The information sought, related to the responsibility for and influences on development of the projects, the activities of project monitoring, and the accomplishment of the project

objectives and activities. The effects of the projects were also considered particularly on the target audiences, and on the actual, potential and non-users of the systems. The development of outputs and services related to the project was also reviewed, as well as promotion, evaluation and impact of the systems and services on the use of information and on national development.

Missions were undertaken to:

Barbados, Grenada, Trinidad and Tobago, The Dominican Republic and Jamaica,

and another mission was extended to facilitate meetings with project leaders and users in:

Saint Lucia, St Vincent and the Grenadines, Dominica, Antigua and Barbuda, St Kitts and Nevis, and Montserrat.

Although it was not possible to visit Cuba, and Haiti, discussions with IDRC program officers in Ottawa, and librarians from documentation centres participating in the networks. Reports from the ISD files were also used as the basis of the evaluation of the projects in those countries.

STATUS OF THE INFORMATION SYSTEMS

The projects reviewed were found to have been mainly developed by the current project leaders or by their predecessors, and consequently there is an awareness of the requirements of the systems and the responsibility for their maintenance and development. In two cases, the Caribbean Energy Information System, and the Organization of Eastern Caribbean States (OECS) Information Network - INFONET, the projects were developed at the request of the management of the institutions, and while the Directorate of the OECS Secretariat has managed to sensitize the Project Leader, to the role, function, and responsibilities of the regional system, the Project Leader of the Caribbean Energy Information System seemed to be under the impression that the project and system had been imposed on the institution by IDRC, the CARICOM Heads of Government, or other agencies external to the Scientific Research Council of Jamaica, the designated lead institution. This can somewhat be attributed to the changes in the ministerial responsibility, and the consequent changes in the top level management responsible of the Scientific Research Council.

The regional institutions were found to have played a significant role in developing these systems and in encouraging the sharing of experiences and of information within the region. There have been 13 projects in which regional institutions were linked to national focal points, 6 projects in regional research institutions, mainly the University of the West Indies, and 18 projects in national institutions mainly facilitating the development of national institutions in concert with the activities of the regional information systems. The Regional Information System Strategy for the Caribbean to the year 2000 which was ratified in 1987 by the CARICOM Heads of Government, and by the Caribbean Development and Cooperation Committee, identified aspects of development information systems which need to be developed within each sector or specialized field as:

- Bibliographic
- Textual - (directories etc)
- Quantitative

with communication channels for disseminating information about the systems, and for distributing information to users. These channels include the media, and consultant and advisory services.

The ISD projects which were originally mainly bibliographic, have since 1984 begun to include other areas such as the quantitative information system for Market Information run by the Association

for Caribbean Transformation, and the Caribbean Technology Consultancy Service which is mainly an advisory service. The scope of the projects has indeed widened to match users' requirements, and now the range has included the design of the Animal and Plant Health Reporting System subsequently activated by International Institute for Cooperation in Agriculture in 1988.

A decision support system which has been initiated by the Eastern Caribbean Central Bank, and support for a Pilot Project for the Caribbean Trade Information System which incorporates bibliographic as well as quantitative and textual information were the precursors of other such integrated systems as the Caribbean Energy Information System and the Fish Management Information System in Trinidad which began activity in early 1988 and 1989 respectively.

Communication of technical information to users is an area which is not systematically reflected in any of the systems. During the lives of the projects, the project leaders of CARISPLAN and of the Caribbean Technology Consultancy Service, produced video tapes to promote the systems, and others have used the local mass media for promotion. The repackaging and dissemination of information from the projects or systems have so far only been done by the Land Use Remote Sensing project from the Dominican Republic which produced a video tape in layman's language, to explain the findings of the project to the peasant farmers.

USE OF TECHNOLOGY

Some projects particularly CARISPLAN and subsequently INFONET were able to benefit from the availability of new information technologies. CARISPLAN, used the methodologies and equipment developed by the IDRC-supported system INFOPLAN of ECLAC Santiago, while INFONET was able to benefit directly from the fact that librarians had already been trained in these methodologies under the CARISPLAN project. At the other end of the scale, however, some projects were delayed by difficulties in selecting technologies, and the inability to put the basic technical structure in place. The Women in Development project at the University of the West Indies Institute for Social and Economic Research, was one in which there was prolonged difficulty in establishing the technical aspects of the system, and although the Institute is continuing the data analysis, the original delay has resulted in output which now needs to be updated.

There have also been difficulties in estimating the time required for learning to use the technologies and then completing the activities required by the project, and in the case of the

Eastern Caribbean Central Bank, the development of the database has not been completed and therefore it is not yet possible to use the system as a decision support system.

BUILDING INDIGENOUS CAPACITY

Human resource development has been a strong point in the ISD projects. Short term training and attachments have been included in all the projects and this has helped the project staff to activate new or unfamiliar areas in information systems development. The training of end users has been included in some projects, and this should be given a more prominent role in the design of future projects. Where the training has been effective or where the end users were previously aware of the role of information, the systems have provided support for decision makers. This has been particularly evident in St Vincent and the Grenadines, Trinidad and Tobago, Jamaica and Montserrat.

In general the projects have had a major impact on information services and use, on the use of appropriate information technologies, and on the development of indigenous capacity. The knowledge of this has, however, been confined to the librarians and information specialists and to a group of policy makers, planners, and researchers, and the effect of the systems on the 'ultimate beneficiaries' would seem to be as beneficiaries of the plans and programs rather than as direct users of the information systems and services.

REGIONAL PRIORITIES AND ISSUES

AGRICULTURE

As the Caribbean prepares to enter the next decade, there are several development priorities and issues which become evident. The change in the economic status of several of the countries has resulted in an expressed desire for more efficient agricultural production in support of food security, and as the basis of diversification in agricultural exports.

ISD's support of related information systems for agricultural development would need to take into consideration the several aspects of information services which still need to be developed to ensure that relevant agricultural information can be used as the basis of decision making in agriculture and can be a factor in improved agricultural production.

The efficient operation of an information system would require the filling of the gaps in the development of information systems for agricultural development. The main agricultural system is CAGRIS, which is in the process of development. This system has focussed on services to researchers, and in particular the clientele has been officers of the Ministries of Agriculture. Other researchers, and the technical personnel of the commodity boards or of the private sector are not aware of CAGRIS, and therefore have not yet been able to make full use of its services. This area - information services in the area of documented agricultural research - would therefore need to be upgraded. In the first phase of CAGRIS the objective was omnibus collection of all documents produced in or relevant to agricultural development in the region. While this effort is by no means complete, there is the need to place emphasis on comprehensive collection and analysis of all materials in the priority areas of Caribbean agricultural research and development, and the subsequent systematic dissemination of this information to the Extension Services to progressive farmers and to the media for repackaging and dissemination to the agricultural community.

CAGRIS and other agricultural information systems would also need to be informed by the requirements of the marketplace as well as the related issues of post harvest treatment and pest and disease management. Information on market requirements - local, regional and global - is needed by local and regional agricultural producers, and exporters. The Association for Caribbean Transformation (ACT) in Phases I and II of the project for a Market Information System, has developed a methodology for production and marketing information in Trinidad and Tobago and in Dominica, and this is available as a model for the development

of a regional system which as requested recently in May 1989, by the Standing Committee of Ministers of Agriculture, should be closely linked with CARTIS in terms of methodologies, national focal points, and service points for users.

REPACKAGING

The repackaging of information on technologies generated in or relevant to the region is also required as a means of making the information available to the 'ultimate beneficiaries' - the agricultural producers.

DISSEMINATION OF INFORMATION

The dissemination of this information through the extension services, libraries, and the mass media provides a communication channel using existing local infrastructure. Agricultural extension personnel with training and experience in the use of the media for disseminating technical information, and agricultural information specialists are in short supply. There are several programs and projects which include short term training of agricultural information specialists, but there is scope for training some specialists in particular aspects of disseminating technical agricultural information within a regional system and to various types of agricultural producers.

PROMOTION OF THE SYSTEMS

The dissemination of information from these systems has been through circulation of abstracting journals, bulletins and , newsletters, to individuals and libraries and documentation centres. Promotion of these services through seminars and presentations at meetings should however be on a regular basis, and integrated into the life of the systems. Systems which are expected to provide services to the ultimate beneficiaries serving the agricultural community should incorporate all available channels of communication for advertising the systems, and making the users aware of the services.

THE NATIONAL AND REGIONAL COMPONENTS

Information from the regional systems should be readily available to users at the national level, and it is therefore proposed that all the information units in a particular sector at the national level, should be considered as possible as national access points of the regional systems. These would include:

- Libraries of the Ministries, and other organizations for in the sector
- Marketing boards and databanks etc
- Extension services of the Ministries and other organizations - public and private
- The mass media

The Public Library systems

In addition to the development of overall systems, there is also scope for studying particular problems within the priority sectors. One proposal from a farmers group in St Vincent and the Grenadines requests study of the effects of the pesticides used in the production of bananas on farmers and on the environment. A sample of farmers could be involved in providing the data and would also be able to make use of the findings to correct their practices, and possibly to safeguard their lives.

THE ENVIRONMENT

This is also expected to become an issue of increasing importance, both from the point of view of pollution as well as that of land use. As this has been designated as an area for work by IDRC, the experience gained by the Universidad Catolica researchers, in the Dominican Republic in the recently concluded project which used remote sensing to study land use patterns in a region of that country, could be used by other Caribbean countries in their study of land use patterns, and their efforts to provide decision makers and other implementors with data on which to base their decisions.

HUMAN RESOURCES DEVELOPMENT AND MANPOWER PLANNING

Information in this area is increasingly being required. The problems of unemployment, the need for training and retraining for new development areas, and the availability of skills in one part of the region which might be required in another, indicates the need for development of databanks of regional skills. The CARICOM Heads of Government recently approved plans for permitting the free movement of graduates of the UWI between the countries of the region, and this implies the need for information at this educational level, and possibly at other levels. The Government of Jamaica has, for example, begun the development of a skills bank as the basis for planning its educational program.

PLANNING AND DEVELOPMENT OF THE INFORMATION SECTOR

The impact of local and global developments on the planning process has encouraged national efforts to rationalize the information sector, and to bring together related components which might have been previously isolated. Both Jamaica and Trinidad and Tobago are in the process of developing plans for the information sector and while Jamaica has established an Information Task Force of which the Executive Secretary of NACOLADS is the Chairman, Trinidad and Tobago has completed a draft review of the sector which is expected to provide the basis for its rationalized development.

INFORMATION SCIENCE TRAINING AND RESEARCH

The regional systems, particularly CARISPLAN, have fostered the sharing of information on information science, information systems, and information technology, among professionals in the region, and have encouraged continuing education in all areas of information systems development. Training in the region has been in discrete components of the information sector, but training in the management of the range of information resources is not yet available. This needs to be linked to the specialization of librarians and other information specialists in the priority areas:

AGRICULTURE

EDUCATION

ENERGY

THE ENVIRONMENT

HEALTH AND MEDICINE

INDUSTRY

SOCIO-ECONOMIC PLANNING

TOURISM

TRADE

The examination of possible approaches for the study of users' information needs, and the requirements of users for repackaged information is also required as the basis of all the systems.

Rural development has from time to time been proposed as a focus for information systems. The particular proposal which has reached IDRC, is from a group of academics and development personnel who have formed a Caribbean Rural Development Network, and who are interested in obtaining relevant information. Some of this information is now being provided through the national and regional systems, but there are specific areas such as the request for the study of the effects of certain pesticides on farmers, from the National Farmers Union in St Vincent and the Grenadines, which can be the basis of developing an information system which can directly assist the farmers and other implementors of rural development programs.

CHECKLIST OF PRIORITIES AND ISSUES

As a result of the evaluation, and the data collected from discussions with project leaders, other information scientists involved in the projects as intermediaries, and some of the users, priorities and issues arose which have implications for future work by IDRC, and the information sciences division in the region. The main ones have been formulated as a checklist which can be used by program staff in assessing, monitoring and evaluating projects, and in determining new program areas.

- * Does the activity fall within the framework of the Regional Information System Strategy for the Caribbean to the year 2000?
- * Does it take the national information system(s) and plans into consideration?
- * Is it within one on the priority sectors of regional or national development?
- * Does it focus on solving particular problems of the community ?
- * Does the activity fill a gap in the structure of the information systems and services operating in the region?
- * Is there provision for access at the national and provincial levels to the outputs products and services of the information system?
- * Is there provision for human resources development in specialized areas?
- * Does the activity utilize the existing telematics facilities in the region?

NATIONAL INFORMATION SYSTEMS

Assistance in the development of national information systems in Jamaica, Barbados and Dominica was aimed at helping these Caribbean countries in the coordination of their national library, archive and documentation services, and in the improvement of these services, particularly to policy makers, planners and technical personnel. The project in Jamaica which was the earliest, was subsequently able to serve as a model for the development of the national systems in Barbados and Dominica, and two of the key players in Jamaica were recently able to serve as resource persons in the planning for development of national systems in Tanzania and the Gambia.

JAMAICA

NATIONAL INFORMATION SYSTEM AND NETWORK PHASE I AND PHASE II

PHASE I: JULY 1980 - JULY 1984
PHASE II: MARCH 1984 - MARCH 1988

**HOST INSTITUTIONS: NATIONAL COUNCIL ON LIBRARIES, ARCHIVES AND
DOCUMENTATION SERVICES (NACOLADS)
NATIONAL LIBRARY OF JAMAICA
PLANNING INSTITUTE OF JAMAICA**

PROJECT LEADER: MRS. SHEILA LAMPART

In 1978, the Government of Jamaica, recognizing the need to coordinate and improve information services, ratified The Plan for the National Information and Documentation System. Phase I of this project assisted the National Library of Jamaica in assuming its new role as the coordinating focal point of the system and the National Planning Agency in upgrading its Documentation Centre, and in establishing the National Socio-economic Information Network. Phase II enabled NACOLADS to ensure the continued development of the system, specifically through training programs, creation of automated bibliographic data bases, and establishment of a National Micrographic Laboratory within the National Library.

PROJECT DEVELOPMENT

The project was based on the Plan for a National Documentation, Information and Documentation System which had taken into consideration national priorities, needs of the system, sectoral information network priorities and requirements for developing the focal points of the network. The preparatory activities included consultation with representatives of the National Library of Jamaica, the Jamaica Library Service, the Scientific Research Council, and the National Planning Agency, now the Planning Institute of Jamaica.

Users needs were considered to be reflected in the national and institutional priorities and objectives, which were used to determine the main purpose of the system.

IDRC's assistance was considered by the project leaders as having helped to identify areas of weakness, as well as practical and achievable solutions.

MONITORING

The requirements for regular progress reports, and financial

accounting, and the monitoring role of the IDRC program officers as well as the requirements for reporting to the local project monitoring committee helped to keep the project activities on schedule. IDRC's program officers, provided assistance in the resolution of budgets, and information on equipment helped in the execution of the project activities.

EXECUTION OF PROJECT ACTIVITIES

The project and the corresponding system developed, was found to have improved access to technical information. It also resulted in more effective response to users needs, and better user services. Staff competence was increased and the development of the national network has facilitated access to local resources, as well as participation in regional systems such as CARISPLAN.

Although the project undertook the activities outlined in the projects, shortages of professional and technical staff particularly in government libraries, and inadequate human, material and physical resources, affected the accomplishment of some of the system and project objectives. In addition the expertise acquired by the information personnel resulted in their being given additional responsibility for publications units particularly in the Planning Institute of Jamaica, and at the Scientific Research Council.

INDICATORS OF IMPROVED SERVICES

Improved services are reflected in the growth of the national referral service, increased requests for improving or setting up technical libraries in government departments, increased requests from users, ability to satisfy these requests, speed of response to requests, and expressions of user satisfaction.

USE OF THE SYSTEM

Of a potential user community of researchers, policy makers, planners, extension workers, development bank officers, librarians, farmers and industrialists, as well as students at all levels, the actual users are drawn from all categories except industrialists who have not been fully aware of the available resources, and are also likely to require information repackaged for their immediate use.

PROJECT / SYSTEM SERVICES AND OUTPUTS

Services are rated as good to fair in regard to time lapse between request and response, timeliness of information provided, appropriateness of content, and the appropriateness of the delivery mechanism.

The publications accessions lists, abstracting journals, union lists, and newsletters, are mainly distributed to the library

professionals, and keep the representatives of the participating centres aware of the activities within the system. The abstracting journals are also distributed to researchers and planners in the institutions. The main publications of the system are:

SECIN Abstracts from the Planning Institute of Jamaica
An abstracting journal of socio-economic information

The Directory of Libraries and Information Units in Jamaica

NACOLADS Newsletter

There is limited online communication between the nodes of the national network, and this facility has only been implemented between the National Library of Jamaica, and the Scientific Research Council, as the first link of the local online network, which permits access to the respective databases.

The units of the national system provide access to regional and international databases, commercial, as well as governmental information services in their areas of specialization. The services are used for current awareness, and reference and are expected to form the basis of decision-making, problem-solving, and research.

PROMOTION OF THE SYSTEM

The system is promoted through user education seminars, programs on the press, radio and TV and special productions of newsletters, brochures, posters, exhibitions, and essay and poster competitions. A project which will support another aspect of the national system will focus on promotion of the system, and dissemination of information to users in all sectors.

EVALUATION OF THE SYSTEM

The formal evaluation of the system took place in 1985, but concentrated on the organization of the libraries, rather than the dissemination of information, or its impact on the users. The heads of the relevant units have, however, been doing an informal evaluation in relation to specific activities. There has not, however, been an evaluation of the impact of the information system on the national development process and this is to be undertaken towards the end of the current project.

IMPACT

The development of the national system and the corresponding services has impacted favourably on the use of information by decision makers. At the Planning Institute the majority of the 150 users regularly request information, and in the Referral Service, which was initiated at the National Library of Jamaica as part of the first phase of the project, librarians are requesting information on behalf of clients.

The information provided by the system has enabled the preparation of feasibility studies, plans, policies, and evaluations, the successful solution of problems, implementation of new projects in the use of local resources, greater productivity, and improved marketing facilities.

In this system information used by decision makers in the planning process, can be seen to have benefitted the immediate activities, and also to have a multiplier effect on the nation, as the benefits of the planning and development activities can be shared by the a cross-section of the nation.

The system presently provides support for agricultural research, science and technology research and development, and socio-economic planning, which are all within the area of national priorities.

All units have contributed to the development of the national information system, and particularly through increased cooperation and networking, and this has been facilitated by the initial availability of the referral service, and in the organizational aspect by the development of the Extension Division of the National Library which was initially funded by the project and which has now been established by the Government, as a part of the National Library.

The bilateral linkages of the system include the National Council on Libraries, Archives and Documentation Services serving as the national focal point for Unesco's (PGI) activities in Jamaica, the Planning Institute of Jamaica, serving as the national node for CARISPLAN, and for information from the World Bank, and the Ministry of Agriculture as the focal point in Jamaica for AGRIS and CAGRIS.

The national system has also had impact on the development of national information systems in the other countries in the Caribbean particularly in Grenada, where the Director of that national information system was attached to the Secretariat of the National Council Libraries, Archives and Documentation Services, and the National Library of Jamaica for a month in 1985, while informal discussions have been held with the Directors of the National Information System of Saint Lucia and Dominica. The units of the system also facilitate annual attachments from the UWI Dept of Library Studies.

The National Information System in Jamaica can also be seen to have had a significant impact on the national planning system, as the Executive Secretary of the National Council on Libraries, Archives and Documentation Services has been invited to chair the Information Task Force established by the new administration and representatives of the information profession are members of the Education Task Force and its sub-committees.

IMPACT ON INCREASED USE OF INFORMATION TECHNOLOGIES

The project was the main influence on the incorporation of appropriate information technologies into the system. This has included development of the micrographic facility at the National Library of Jamaica, computerized databases at the National Library of Jamaica, and 14 technical libraries in Jamaica, and the related use of word processing, desk top publishing, and electronic mail. The training provided mainly to the staff of the National Library of Jamaica, and to staff of the national units has enabled these technologies to be used for providing information more efficiently to users.

IDENTIFIABLE GAPS

The development of the national system has also identified gaps including the need for coordination of statistical information within the Planning Institute of Jamaica, development of a National Agricultural Information Network, development of an information service on the environment, and increased access to the present and future information resources through a larger number of access points, as well as promotion and public awareness of the systems and services available.

Another gap in the development of the national system is reflected in the lack of subject specialization of librarians. In the area of agriculture, for example there is now scope for specialized training of some librarians in the management of agricultural information resources, and for the training of some of the heads of units in the Socio economic network, in the management of the variety of information resources which are now required by their users.

SUSTAINABILITY

The resources provided by the project have been absorbed by the Government as agreed during the negotiations. At the National Library of Jamaica, the Extension Department which was supported during Phase I of the project was subsequently established as a new Division, which has been responsible for the development of technical libraries mainly in the Public Sector. The Government of Jamaica has met its responsibilities by supporting the budgets for information materials, equipment support and servicing, and recurrent costs of telecommunications and other costs of accessing and delivering information. Users particularly those in the private sector have also agreed to cover the costs of accessing information not readily available in Jamaica.

Another possibility for financial support is the sale of publications of the system, but this has not yet been investigated.

CONTRIBUTION TO BUILDING RESEARCH CAPACITY

The national system has been able to increase the availability of information to researchers, and in addition provides the basis for study of the development of a national information system and its impact on particular developments in the country.

BARBADOS LIBRARY ARCHIVES AND INFORMATION NETWORK

SEPTEMBER 1982 - SEPTEMBER 1985

**HOST INSTITUTION: DIRECTORATE BARBADOS LIBRARY ARCHIVES AND
INFORMATION NETWORK (BLAIN)**

PROJECT LEADER: MR. MICHAEL GILL

The Government of Barbados had prepared a plan for a comprehensive national information system, and this project sought to support the development of the Barbados Library Archives, and Information Network. The project aimed to establish the Central Directorate which will coordinate the development of BLAIN; and strengthen the information services to government policy makers and planners.

The development of the national library, archive and information network was proposed in 1979 by the National Council on Libraries, Archives and Documentation Services (NACOLADS) which was established by the government as an advisory committee on the development of the national information system. The proposals of the local sub-committees were considered in conjunction with the recommendations of a consultant, provided by IDRC and several working parties were responsible for the national system as it was finally designed. The actual project proposal was worked out with the program officers from IDRC, who assisted in defining the specific objectives for inclusion in the project.

PROJECT MONITORING

Of the several activities required of the project, the one which seems to have received emphasis was the development of a central processing facility for the component units of the Public Library System. The development of the government libraries was not however, accomplished during the project although since the project's completion the positions of Coordinator of Government Libraries and Systems Analyst have been established within the National Library Service.

During the project the Director of BLAIN reported to the Permanent Secretary in the Ministry of Information, and subsequently to the Ministry of Education, and did not seem to have the clout to reactivate NACOLADS or to motivate the Permanent Secretaries in other ministries to take action in regard to the development of a network of government libraries.

PROJECT ACTIVITIES / EXECUTION

The new feature in the information service was the online access to external databases which was provided free under the project. These services were used by researchers and decision makers, and BLAIN also facilitated access by local decision makers to regional information systems.

The fact that the initial project was negotiated by the Minister and Permanent Secretary of the Ministry of Information, a new Ministry which had responsibility for coordinating the national information functions had initially given it some impetus, but this was greatly reduced as BLAIN was transferred to the Ministry of Education, and subsequently was separated into the National Library Service and the Archives. Physical relocation of the National Library Service from a building adjoining the main Government Buildings to a less visible location might also have contributed to its inability to increase its influence on the government departments.

USE OF THE SYSTEM

The system as it developed did promote use of the online and other resources, and potential users in Barbados were aware of BLAIN and some of its developments. It is possible that the services offered did not match all the needs of the target audience - policy makers etc, or of the general public which indicated interest in 'community information'.

In the main, BLAIN as it was during the project seems mainly to have served to support the work of local researchers, rather than as the basis for decision making or problem solving.

PROMOTION OF THE SYSTEM

This was done through User education seminars, and the mass media, particularly TV and the local newspapers.

BLAIN during the project life provided access to CARISPLAN and to AGRIS, as well to commercial databases available from DIALOG, and the National Library Service has continued to serve a local link with these services as well as with CAGRIS. The main source of document delivery is the British Lending Library.

A major aspect of the BLAIN project was the establishment of automated procedures for the processing of the materials in the public library. This speeded up the clerical aspects of the processing, but resulted in a backlog of materials to be physically processed and distributed.

GAPS

As BLAIN was designed, it was intended to include sensitization of the government officials to the role of technical information and the development of technical libraries. This only began in 1986\87 with the appointment of a Coordinator of Government Libraries who is now attempting to do this sensitization while assisting the Ministries particularly the Ministry of Agriculture to develop its own library.

SUSTAINABILITY

The positions required for post-project development have now been established including that of Systems Analyst / Data Processing Manager. When the position is filled, this person will have responsibility for the development of an inhouse database using CDS/ISIS and a VAX Mini computer which has recently been acquired by the Government for the National Library Service.

Other resources provided under the project have been sustained by the Government through the Barbados Library Service. The costs of searching commercial databases were included in the project, but although the staff have the expertise and experience in searching, this facility is much less used partly because the promotion has been greatly reduced and some of the users are not willing to bear the actual costs of telecommunications and database searching.

NATIONAL INFORMATION SYSTEM - DOMINICA

JULY 1986 - JULY 1989

HOST INSTITUTION: DOMINICA PUBLIC LIBRARY

PROJECT LEADER: MRS. CORNELIA WILLIAMS

The Government of Dominica also expressed interest in the development of a coordinated national information system, and this was expected to support the national development program. The interest of the Government in this project was particularly demonstrated by the fact that additional funding, in addition to that provided by the IDRC project, was secured for the construction of a building to house the Documentation Centre. This Centre was expected to provide a multidisciplinary information service and to function as the coordinating focal point for the National Information System.

PROJECT DEVELOPMENT

This project was initially drafted by the Director of the Public Library with the assistance of the Coordinator of the CARISPLAN system with the view to developing a national focal point for that system and implementation of the first phase of the National Information Plan. Further discussions with representatives of the government and subsequently with ISD, project officers resulted in the current project.

PROJECT ACTIVITIES / EXECUTION

The major preparatory activities have been accomplished, and the three trainees will all have returned from studying in Jamaica by the end of the project.

The collection and processing of materials for the documentation centre is in train and all the physical facilities have been provided by the Government. The Documentation Centre is in a temporary location in the basement of the Public Library pending completion of an addition to the new Documentation Centre, and consequently service is not at optimum levels.

User education seminars and interviews have been held for all senior officials in the government, and these have been used to identify information needs and possible services from the national and regional information systems.

The Documentation Centre has also facilitated Dominica's participation in the regional systems, particularly CARISPLAN, and INFONET. While some material has been received on request from CAGRIS, the requirement for information services within the country resulted in a request to FAO for equipment and consultancy services for developing the small technical library serving the agricultural community. This FAO project has been approved and is due to begin in 1990.

SUSTAINABILITY

The resources provided by the project will form an integral part of the system in the future. The positions have already been established by the Government, some information materials are provided through a regular budget, and funds for servicing of equipment and maintenance of the buildings are expected to be provided by the budget for recurrent expenditure for the national information system. Telecommunications charges are also covered by the regular budget, but this is unlikely to cover the cost of accessing CARISPLAN, or the external commercial databases.

At present the system does not generate any income, but it is possible that this could be done through sale of publications.

As this system develops it can contribute to the basis of Information Science Research, and can provide data for developing an approach to providing information services which match the information seeking and information using behaviour of policy makers and planners in small states.

CARISPLAN

PHASE I JANUARY 1978 - APRIL 1981

PHASE II JANUARY 1980 - APRIL 1985

PHASE III JANUARY 1985 - JANUARY 1987

(included with CARPIN in the Caribbean Information Network Project)

HOST INSTITUTION: United Nations Economic Commission for Latin America and the Caribbean (ECLAC) Caribbean Documentation Centre

PROJECT LEADER: MRS. WILMA PRIMUS

Phase I of this project laid the groundwork for a Caribbean component of the Latin American socio-economic information INFOPLAN. It promoted optimum utilization of Caribbean information resources and provided a mechanism for exchanging social and economic information for decision-making by planners. Phase II sought to consolidate the information activities of the countries already participating in the system, extended participation to all countries in the Caribbean, and laid the groundwork for computerized information processing at the Caribbean Documentation Centre. A third grant under the Caribbean Information Network project assisted in financing ECLAC's mechanization of procedures to improve access by users to information relevant to the region.

CARISPLAN can be considered to have begun a new era in information systems development in the region. It is fortunate that the concerns of the Caribbean Development and Cooperation Committee, (CDCC) its Secretariat at the United Nations Economic Commission for Latin America, and several of the Planning ministries in the Member States, coincided and led in 1977/78 to the design of this regional information system, which was required to provide an information service to the planning community in the Caribbean.

The system design was accomplished with the assistance of a Unesco consultant, and was largely based on the needs of planners and information specialists of the region, as expressed in papers presented to a regional meeting. On approval by the CDCC, the design of the network was submitted to the Centre for funding, and discussions with the Director of ISD, and with the relevant project officers helped to clarify manageable objectives. This was intended to be the first of several sectoral information systems, and its development was followed by that of CAGRIS for agriculture, and CARPIN for patents. The system has been able to accomplish its objectives over the three grant periods, and in the first phase was able to increase the integration of the English-speaking with Cuba, Haiti, the Dominican Republic, the Netherlands Antilles, and Surinam. The incorporation of these

systems was partly assisted by the fact that the CDCC was then more active than it is at present, and had several programs and projects in the Member States.

The reporting required by the CDCC, ECLAC and IDRC, as well as meetings of project personal and the program officers, helped identify the solutions to potential problems, and means, within the project framework, of solving some of these problems. It should be noted however that participation in CARISPLAN by the CDCC Member States has not been fully effective in The Bahamas, and Belize, and although there is interest on the part of Haiti, Curacao, and Surinam, there is still need for the resources of the system to be fully exploited by countries.

CARISPLAN's main success has been in initially helping in the building of national information infrastructure, and in assisting national focal points, and other centres to provide local access to the regional services. The training sessions focussed on analysis of information for the local and regional databases, but also served the purpose of user education and provided feedback on the systems services. As the regional database developed, with input from 18 national focal points, and nearly 100 participating centres, CARISPLAN has been increasingly able to contribute to information sharing among its Member States.

The Centre's financial support was of course significant in developing the infrastructure in UNECLAC's Caribbean Documentation Centre, and in the national focal points in Jamaica, St Vincent and the Grenadines, Grenada, and Dominica, and to a lesser extent Trinidad and Tobago, but this also stimulated the individual Member States to upgrade the national information infrastructure as in the remarkable case where the Government of Dominica obtained other funds for a building for the Government Documentation Centre, and in all other cases staff and facilities have been provided in support of IDRC's financial assistance.

In addition to the development of the national and regional collections and databases, the services provided and requested have increased as the users in the Member States have become more aware of the existence and role of CARISPLAN and other information services.

USE OF THE SYSTEM

For the period May 1986 to May 1989, the following figures for use were recorded:

768 Queries (in person, phone, mail)

The abstracting journal CARISPLAN Abstracts was distributed to 700 libraries and documentation centres and users, and the Current Awareness Bulletin to an average of 600 users per month.

The potential user community of CARISPLAN includes policy makers, planners, and technical personnel of the Member States, and services are also provided to librarians and other intermediaries, university researchers, and media personnel. The potential for using the system is much greater than has been experienced, and it is expected that greater use would be made of the system if the services provided were more precisely matched to the needs of individual users or to specific user groups.

In addition to the form of delivery, lack of online access to the regional database has contributed to non-use. At present there are less than 150 registered users, and the cost of providing UNECLAC with incoming access to the local packet switching network is another factor which will prevent the CARISPLAN database from being widely available. Periodical transfer of the regional database to CD-ROM or other medium, is likely to be one solution, to the problem of improving local access. CD-ROM can provide users more ready access to information sources in each country, and should be considered as a possible substitute for CARISPLAN Abstracts, which seems to be too time consuming to produce, while still requiring users to do manual searching. The services provided are mainly in the area of current awareness, and answering specific queries, and to some extent have facilitated decision-making by government officials. Although relevant information is held in the system in the form of studies, reports, etc. there apparently is not adequate information for solving some of the problems of policy makers and planners, and this type of service would best be based on more detailed analysis of specific documents related to current regional, national or situational problems.

PRODUCTS AND SERVICES

The Caribbean Documentation Centre produces the following products from the CARISPLAN database:

CARISPLAN Abstracts (Quarterly)
Current Awareness bulletin (Monthly)
Special bibliographies

These are mainly distributed to the 100 participating centres, and to individuals in the planning ministries, and related institutions.

PROMOTION OF THE SYSTEM

National and regional seminars or workshops for information specialists, and users of the system, inhouse brochures, a video tape, and articles in the mass media have been used to promote the system, and this has helped to make potential users aware of the value of technical information and the types of services available in the region. In spite of these promotional activities, however, there are still potential key users who are not aware of the existence of the system and of the types of services offered. Promotional activities in the future need to be

at several levels, user education seminars, presentations at regular seminars or meetings such as the annual workshop for government officials organised by the Caribbean Development Bank, as well as programs on the local and regional press and radio.

EVALUATION

There is an ongoing assessment of the system's ability to answer queries, but no evaluation of the changing role of the users, or the impact of the system on the development activities. The CDCC priority areas are expected to provide guidance to the information system, and the development of an SDI service in national priority areas has been undertaken to provide users with references from CARISPLAN or commercial external databases including those of the United Nations system.

As services were mainly targeted initially to the planning ministries and equivalent agencies, the information provided is expected to have a multiplier effect on the Member States through this mechanism. The changes from centralized to sectoral planning need at this time to be taken into consideration, as the various ministries, and quasi-government organizations can be expected to play a greater role as users and disseminators of the information from CARISPLAN.

The benefits have been mainly in the form of shared experiences and the ability of Member States to plan more effectively, based on access to relevant information. As CARISPLAN was the first regional system to be implemented in the decade, it has had significant impact on the development of information infrastructure in the Caribbean.

USE OF INFORMATION TECHNOLOGY

Computerization of libraries and documentation centres was significantly stimulated, initially by the availability of the services provided by UNECLAC Headquarters in Santiago, and by the increased availability of mini and microcomputers. The availability of MINISIS from the Centre, as well as the mainframe and micro versions of CDS/ISIS, has also helped to upgrade the level of information services. The short and long-term training provided within the CARISPLAN framework, also provided long term training for two additional professionals. In the case of Guyana, the librarian trained under an IDRC fellowship, managed the library of the State Planning Secretariat for three years. On her resignation in 1984, however, there was a gap of nearly five years before the position was filled in 1989. In St Vincent and the Grenadines, the librarian who received a fellowship, has since been assigned responsibility within the National Information System for developing specialized sectors particularly agriculture.

OECS INFONET

JULY 1987 - JULY 1990

**HOST INSTITUTION: ORGANIZATION OF EASTERN CARIBBEAN STATES.
Central Secretariat, Saint Lucia**

PROJECT LEADER: MISS SANDRA JOHN

A network supported by a more recent ISD project, INFONET is expected to provide more effective services to a more clearly defined target audience. The OECS Secretariat requested IDRC'S assistance in the development of a system which would permit the documents acquired by the Secretariat and government agencies in priority areas, to be available to users of an OECS information network.

In an effort to decentralize the scope and services of the project, each of the Member States was requested by the Secretariat to identify particular facilities and resources which would be required to make the regional system work effectively. The OECS officials reviewed the project proposal and confirmed that the system's objectives were in line with the OECS policies and programs. Two years of the project have been completed and the basic organization of the system has been accomplished. The system continues to collect bibliographic information in the OECS priority areas and the main form of dissemination has been through the monthly current awareness bulletins.

PROJECT MONITORING

INFONET has accomplished the objectives of creating a regional database, disseminating information to users, mainly through the current awareness bulletin, and facilitating national participation in the other Caribbean information systems. There is, however, scope for more effective dissemination of information to users and for assistance in strengthening the national documentation centres particularly that of St Kitts and Nevis. Some more detailed monitoring of this project could help to strengthen these two weak aspects of the system, particularly the methods of dissemination of information.

Annual reporting to the OECS Authority - whose members should also be key users of OECS INFONET has helped INFONET to develop an awareness of the need to respond more appropriately to the needs of the users.

PROJECT ACTIVITIES

INFONET has succeeded in achieving improved services to decision makers, and with the assistance of CARISPLAN, and Unesco's CARSTIN, the software and hardware were provided to the Member States and were installed within the first four months of the project. Professional staffing has been provided by the

Governments and the additional project staff for information analysis and services has been able to provide national input to the regional database.

BUILDING INDIGENOUS CAPACITY

A significant amount of this had been done through the CARISPLAN system, and this should be enhanced through the availability of scholarships for professional training in Antigua and Barbuda, and the British Virgin Islands, as well as short term training in the systems methodologies. In spite of the development of several aspects of the system, and the existence of a network of information specialists who communicate easily, it was rather disturbing to meet with government officials in the Member States, who were unclear about the objectives of the Documentation Centres, and who were unaware of the existence of INFONET as a regional facility.

The design of the system, and the provision of the regional services has helped to foster information sharing among the OECS Member States, and in many cases has reduced the need for searching abroad for documents which are held within the region. Again increased access is necessary as the information seeking which continues outside the scope of INFONET, is often time consuming and sometimes discouraging to users.

An example of this time consuming information seeking is the case of a Saint Lucian researcher who enrolled at the University of Wisconsin in Fall 1988, and requested an online search to be done by the University of Florida at Gainesville on some aspects of education in the Caribbean. He found that one of the most important references was produced by the UWI School of Education Library at Mona, with support from IDRC. This publication and supplement are both available at the University libraries on the three campuses. and in several other libraries, and it is expected that more effective referral mechanism and service would have been able to assist this and other researchers in identifying possible sources of information on the region.

St Vincent and the Grenadines currently has possibly the most advanced centre, of those of INFONET, and regular services include analysis of documents, in the Monthly Current Awareness Bulletin and services from the regional systems and services. This Centre has been able to provide regular input to the regional database.

FACTORS IN THE OECS SECRETARIAT WHICH MIGHT HAVE AFFECTED THE ACCOMPLISHMENT OF THE PROJECT OBJECTIVES.

The fact that the position of Director of the Economic Affairs Secretariat was vacant for several months over 1987/88 resulted in a hiatus in the policy direction provided to the project. With the appointment of a Director of the EAS regular reviews of the policies of the documentation centre, and of the services,

have begun. The lack of a full time documentalist at the EAS has also prevented the project from accomplishing some aspects of the database development. Three possible candidates have been identified and interviews for this position are scheduled to be held by mid July, and the position should therefore be filled as soon as possible.

INDICATORS OF IMPROVED SERVICES

The main indicators of improved services have been the number and type of queries from users, and a more detailed review of each query is done by the Economic Affairs Secretariat. This form should be utilized by the other INFONET centres so that the effectiveness of the services can be more systematically reviewed, while providing more meaningful data for the evaluation which is scheduled for January 1990.

USE OF THE SYSTEM

INFONET is used by the defined target audience in all the OECS Member States. Current Awareness Services are mainly through the monthly INFONET Current Awareness Bulletin, as well as through the bulletins issued by the National Documentation Centres of the Member States. Corresponding publications are requested from the National Documentation Centres, and from the two documentation centres of the Secretariat, and where necessary additional information is requested from the other regional systems, particularly CARISPLAN, CAGRIS, and CEIS.

PROMOTION OF THE SYSTEM

This was initially through meetings which the Network Manager held in each Member State with Information Personnel, key personnel, and Heads of Departments, and subsequently this has also been done through the mass media.

EVALUATION

Evaluation of the system is done by the Network Manager in consultation with the Network Advisory Committee, a rotating committee composed of two of the heads of the national documentation centres within INFONET. The formal evaluation of the system is proposed for January 1990, but there needs to be a clear definition by the Network Manager and the other members of the Network, of some of the appropriate indicators, so that data can be made available for the evaluation. This data could be partly based on the records of users queries, and the ability of the system to satisfy their requests, as well as the ability of the system to function in the other areas outlined in the questionnaire used in this evaluation.

IMPACT

The system has been seen to have impacted on the use of information by some of the key decision makers in the OECS. For example, Prime Minister Mitchell of St Vincent is a regular user of the documentation centre in Antigua and Barbuda, the Deputy

Prime Minister Hon Lester Bird attended the open day held by the National Documentation Centre in Antigua, and the Prime Minister of Dominica, Hon Eugenia Charles who has displayed very keen interest in the development of the National Documentation Centre, was the Guest Speaker at the second meeting of INFONET held in Dominica in 1988.

SUPPORT FOR NATIONAL DEVELOPMENT PROGRAMS

As INFONET works initially within the OECS priority areas, the system is by its design geared to support national development priorities. Input to the work of government officials is therefore expected to support national development priorities.

IMPACT OF THE SYSTEM ON THE DEVELOPMENT OF NATIONAL DEVELOPMENT INFRASTRUCTURE

Since the inception of INFONET in 1987, facilities for national infrastructure development have included the provision of hardware, software, and training in the use of the new information technologies. The impact of INFONET has depended, however, on the stage of development of the national information system. St Kitts and Nevis, for example, has not yet developed a National Documentation Centre and therefore although the database development is being done very creditably by the Public Library, the lack of staff, an appropriate, building, facilities etc has apparently resulted in less impact on the target group than would have been expected.

IMPACT ON THE USE OF APPROPRIATE INFORMATION TECHNOLOGIES

The development of national databases of locally relevant documents, has benefitted greatly from the use of computerised systems. This has increased the speed of access, and response, as well as the variety of ways in which information can be provided. The use of data communications facilities by the network has not yet been possible, partly because the fact that the telecommunications services are not yet promoted through the normal commercial channels, and partly because of lack of expertise to determine exactly the telecommunications facilities which are required. Experimental access to the databases offered by UNECLAC, was undertaken in Montserrat, and Dominica, but at present costs have precluded regular online access to these regional databases.

Access to strategic sections of the databases on diskettes and or CD-ROM would reduce the delay in providing basic searches, and consequently provide a more efficient service at the national level.

SUSTAINABILITY

The OECS Secretariat has already made basic arrangements for continuing the work of the Network after the project is completed. The positions of Network Manager and Documentalist of the Economic Affairs Secretariat have been approved by the OECS

Authority. At the EAS the position of documentalist was for the first three months filled full-time and since then part-time by an experienced documentalist. There has been some delay in recruiting a suitable EAS documentalist, and finally it has been decided to recruit a graduate with some experience in statistical or computer sciences and with some knowledge of the government services. This person will however need training in library science and in some aspects of information resources management, and it is expected that this can be done at intervals of one semester each over the next three years.

Information materials

Information materials have been mainly acquired as gifts but there is still need for the Secretariat to provide a definite budget for information materials - particularly reference books, and journals.

Servicing, particularly of the computers also needs to be provided for in the Secretariat's and the national budgets as regular servicing of the machines will be required for smooth running of the systems.

Ability of the system to generate income

The sale of the Network's publications - Current Awareness Bulletin, and special bibliographies, - is a possible means of generating income. This would, however, require organization of appropriate distribution channels to ensure that service to the main target audience is not reduced.

BUILDING OF INDIGENOUS CAPACITY

INFONET as designed for providing services to government has the potential for answering some of the questions in information science research. The questions of how government personnel seek information was studied by the Sheffield group in the late seventies, but with rather inconclusive results as to the type of information service which would be appropriate. In the case of the OECS, the information needs of government officials in small states, can be studied through the type of information sought from the Network, and the types of services which have satisfied these needs, as a basis for providing an approach to further development of information services.

WOMEN IN DEVELOPMENT: DATA RETRIEVAL SYSTEM

HOST INSTITUTION: UNIVERSITY OF THE WEST INDIES Institute of
Social and Economic Research (ISER), Cave
Hill, Barbados.
PROJECT LEADER: DR. JOCELYN MESSIAH

PROJECT DEVELOPMENT

This project was developed at the request of the Institute, which had already accumulated the data as a result of several studies of women in development in some of the countries of the Eastern Caribbean. Research into socio-economic aspects of development in the Eastern Caribbean is within the mandate of the Institute, and therefore this project's objectives are closely related to those of the host institution. Discussion with ISD project officers helped to clarify the required activities, and a consultancy helped to determine the activities for selecting and installing the computerized system.

PROJECT MONITORING

The project has not been successful in achieving several of its objectives. The main activity of transferring the data to the computerized system was delayed by the time required for selecting, installing and learning the computerized system, and consequently development of the database still has to be completed. The trouble shooting by a member of ISD's Computer System's Group, helped clarify some of the technical difficulties, and to bring the project back on target.

PROJECT ACTIVITIES / EXECUTION

The project has the potential to provide an improved system for decision making, while having improved the indigenous capacity in the Institute for database creation, and analysis of socio-economic quantitative data. At this stage, the technical difficulties have been overcome, and staff of the Institute have been trained in use of the software, and are in the process of developing the databases.

USE OF THE SYSTEM

The main users of the computerized database are expected to be researchers within the Caribbean, while the analysis which is to be compiled in publications of the Institute is expected to be used by planners and decision makers in the region.

PROJECT/SYSTEM OUTPUTS AND SERVICES

The publications which are required by the project, and which are planned by the Institute will be the main outputs of the project. The delay in database development will however require the updating of the data to be included in the publications if the outputs are to be truly valuable.

PROMOTION OF SYSTEM

It has not yet been possible to begin promotion of the system.

EVALUATION OF SYSTEM

There has not been an evaluation of the project or of the system under development.

IMPACT

There cannot be said to have been any impact on the potential user community of researchers, and socio-economic planners. The data will be valuable in informing the decisions relating to women. The impact is however, likely to be less than would have been the case if the project had been completed on schedule as special programming for Women in Development can be expected to decrease after the end of the UN Decade.

SUSTAINABILITY

The project has been carried out as an integral part of the ISER's program, and consequently there is provision for human resources after the initial data entry has been completed. The Institute also plans to retain the services of the Junior Research Fellow who has also functioned as System Manager during the later stages of the project. The servicing of the equipment is also expected to be undertaken as an integral part of the Institute's maintenance program.

IMPACT OF INFORMATION TECHNOLOGIES

The development of the data retrieval system has required the use of appropriate information technology, and after the initial difficulties with learning the software, and database creation techniques the Institute has now been able to utilize the computerized system for more effective analysis and dissemination of the data which otherwise would not have been accessible. The difficulties in this project also points to the difficulties which recipients have had in estimating the time required for completing the data entry in this case 18 months was budgeted for but some 48 months have passed without completion of this aspect of the system.

LAND REGISTRY INFORMATION SYSTEM - Trinidad

MARCH 1986 - MARCH 1988

HOST INSTITUTION: MINISTRY OF LEGAL AFFAIRS

PROJECT LEADERS: MR. J RUIZ

This Centre-administered project sought to establish an efficient microform-based system for the storage of land-registry records with computer-generated indexes to facilitate retrieval.

PROJECT DEVELOPMENT

The Government of Trinidad and Tobago, in an attempt to modernize its land registration system, requested IDRC's assistance for the design, implementation and testing of a microform-based computer-generated index which would provide access to the registry of land titles.

PROJECT MONITORING

This project was Centre administered so that the monitoring was mainly done by the Centre in relation to the work of the consultants who were responsible for training and initial setup of the computerized indexing system.

PROJECT ACTIVITIES / EXECUTION

This system has the potential for improving systems and services for decision making on the part of the government physical planners, as well as on the part of individuals. In addition to the production of the indexes, the project has provided for the training of local staff in the efficient production of microform and computer generated indexes.

The Land Registry and the National Computer Agency have since the completion of the training program, been working closely on transferring the titles and filming has been completed for 8 years of the records. At the time of the evaluation there had been a temporary stoppage since December 1988 because of lack of filming materials.

Extra shifts have been planned however and it is estimated that the task can be completed by the end of 1989.

Some of the difficulties in obtaining resources can be attributed to the change in the foreign exchange situation in Trinidad and Tobago which was not fully predictable at the time of the project development.

USE OF THE SYSTEM

The two sections of the index which have been completed are now being used by the search clerks of the Land Registry Office. This is used to answer questions from the officials of the Land

Registry, as well as from the general public.

DEBT RECORDING AND MANAGEMENT SYSTEM

MAY 1987 - MAY 1989

HOST INSTITUTION: EASTERN CARIBBEAN CENTRAL BANK

PROJECT LEADER: MR. EUSTACE LIBURD

This project sought to assist the Eastern Caribbean Central Bank to establish a sub-regional debt recording and management system for the member countries of the Bank.

PROJECT DEVELOPMENT

The project emanated from discussion and consultation between the Eastern Caribbean Central Bank, and the Commonwealth Fund for Technical Cooperation. It was proposed as a system which would continue some of the work of the Inter-Agency Resident Mission which had been responsible for collecting and analyzing data on the economic situation in the OECS countries. The project aimed to develop a regional and national capability for a decision support system in debt management, and was ratified by the ECCB board of directors. The system as outlined in the project relates to the monitoring of debt in the ECCB Member States, and therefore the objectives are very closely related to those of the Central Bank.

PROJECT MONITORING

There was some delay in the execution of the project as the Commonwealth Fund for Technical Cooperation required that each Member State sign an individual agreement to participate in the system. The system was consequently not able to achieve all the objectives, and as the development of the computerized record of the databases is still in progress in the Member States, and in the Central Bank. The second stage which would have included the development of the capacity in each country to formulate appropriate borrowing policies, based on the information held in the system, has not yet been possible, and is now proposed by the ECCB as a Phase II of the same project. It has been difficult to estimate the time required for development of decision support systems, which unlike bibliographic systems can only be used as a meaningful source of information when all the data has been entered and validated.

PROJECT ACTIVITIES / EXECUTION

The project activities have all been initiated, training of the first level of users has been completed, and the Bank, as well as the national nodes in the Ministries of Finance have been able to convert a large percentage of the data to the computerized system. The present debt management system could, however only be considered to be improved when the end users - the Financial Secretaries and Assistant Secretaries in the Ministries of Finance, as well as the debt management officers of the ECCB are able to use the system to take decisions on debt management.

USE OF THE SYSTEM

It has not yet been possible to use the system, or even to train the end users.

PROMOTION OR DEMONSTRATION OF THE SYSTEM

The end users are expected to be the officers of the ECCB, and the staff of the Ministries of Finance, of the 8 Member states of the Bank. It is planned that a seminar for these officials be held as soon as the basic structure of the system has been completed. Researchers such as those at the University of the West Indies, and at the other central banks in the region, could also benefit from the experience of the ECCB in installing the system, and therefore a paper analyzing the system, could be presented to the bi-annual Regional Monetary Studies Conference.

SUSTAINABILITY

The ECCB staff have been trained, and while there has been some turnover in the staff of the Member States, there are still several permanent staff members in each country who can input and retrieve data. Changes in the technology, particularly the issuing of a new version of the CS-DRMS software, is also likely to extend the time required for presenting the decision support system in a usable form.

INFORMATION ON THE ENVIRONMENT

LAND USE REMOTE SENSING - Dominican Republic

1986

HOST INSTITUTION: UNIVERSIDAD CATOLICA MADRE Y MAESTRA, CENTRO
DE ESTUDIOS URBANOS Y REGIONALES (CEUR)
Santiago de los Caballeros, Dominican Republic

PROJECT LEADER: Prof Rafael Yunen

This project assisted the Universidad Catolica Madre y Maestra, and Sherbrooke University, Quebec, to enable the Centro de Estudios Urbanos y Regionales, and the Centre d'applications et de recherches en télédétection to define land-use trends in the western sector of the Dominican Republic from an environmental and social point of view.

PROJECT DEVELOPMENT

This project was developed by the Universidad Catolica Madre y Maestra to provide information as a basis for national planning. Initially the objective of Professor Yunen as Director of the Centro de Estudios Urbanos y Regionales (CEUR), was a study of land use patterns in the entire island of Hispaniola. Rationalization of the objectives led however to the development of this project which concentrated on the western region of the Dominican Republic.

PROJECT ACTIVITIES / EXECUTION

As the activities were very clearly defined, and as there was assistance for implementing the technical aspects of the project from the Universite de Sherbrooke, all aspects of the project were undertaken including the publication of the results at local and regional seminars, and the depositing of the results in the relevant government departments.

USE OF THE SYSTEM

The researchers of CEUR have been able to use the LANDSAT data for further analysis, and their interpretations have shown the effects of the deforestation over the period 1973 to 1985. It has not yet been possible to ascertain whether the national planning mechanism has incorporated any of the information provided by this research project, into the planning activities, but the research team considers that in addition to the input to the national planning process, efforts should be made to communicate directly with the peasant farmers to persuade them to modify their methods of land use which damage the environment.

PROJECT OUTPUTS AND SERVICES

In addition to the LANDSAT maps, analyses, and the academic articles and papers presented at conferences, a video tape which was produced, repackages the results of the project in a form easily understandable to the peasant farmers. It has been used in small group meetings, and is also to be shown on the mass media. The project also required the publication of an article analyzing the project in one of the journals of the UWI which would make the information more widely available to researchers in the region.

PROMOTION OF THE SYSTEM

Promotion of the system was mainly done as agreed under the project, and papers describing the project, and analyzing its activities have been reproduced in newspapers and at conferences.

IMPACT OF THE SYSTEM ON USERS

Although the information from the system has been disseminated through the mass media, it has not yet been possible to examine the results of the system on the 'ultimate beneficiaries' - the farmers and other users of land in the area under study. There is also the question of the possibility of influencing the owners of large plantations whose methods of land use might not be friendly to the environment.

SUSTAINABILITY

As the project's activities have been an integral part of the activities of CEUR, the information base which has been developed under the project can be further manipulated by the researchers, and also made accessible to other users. Some of the follow up activities including more detailed training of the CEUR researchers in analysis of satellite data, have been included in the Phase II which has been submitted to the Social Sciences Division.

IMPACT OF INFORMATION TECHNOLOGIES

This project depended greatly on the availability of appropriate information technologies, for gathering the relevant data over time. The analysis would not have been possible without the detail which could have been acquired by satellite data. The CEUR researchers wished to place emphasis in the first phase on the interpretation of the data rather than on learning to use the technology, and this seems to have contributed to scheduled completion of the objectives.

INFORMATION FOR AGRICULTURAL DEVELOPMENT

The range of information systems supporting agricultural development provide bibliographical information as well as, marketing and production data. Repackaging and communication aspects of agricultural information are still to be developed.

CAGRIS

FEBRUARY 1985 - FEBRUARY 1989

HOST INSTITUTION: UNIVERSITY OF THE WEST INDIES, Main Library,
St Augustine, Trinidad and Tobago

PROJECT LEADER: MISS SHIRLEY EVELYN

This project sought to create an effective agricultural information system for the region. The University of the West Indies was enabled to establish a coordinating unit, and to assist project participants in building the necessary national infrastructure and in participating in the regional system.

PROJECT DEVELOPMENT

This network was designed initially by UNECLAC and the University of the West Indies, in response to the mandate from the Caribbean Development and Cooperation Committee. The UWI Library at St Augustine was willing to share its experience and information resources with researchers and technical personnel in the other countries of the Caribbean. Users' needs were not systematically identified through a survey or even through consolidation of national agricultural policies and program, and consequently it took some time to determine appropriate areas in which service would be required.

PROJECT MONITORING

The objectives of training, and of development of a regional database were undertaken, as well as some assistance in the development of national information infrastructure. Other project objectives: establishment of a regional union list of serials in agriculture; development of a regional cooperative acquisition policy; and coordination of the services offered by the libraries and other documentation units specializing in agricultural information, are still in the process of being accomplished.

PROJECT ACTIVITIES

The activities have all been initiated and the training of personnel from the Member States, as well as the dissemination of information from the regional database, and from the UWI Library, are ongoing activities. The development of national information infrastructure would have been required, to enable each Member State to be able to participate effectively in the regional system, but this is only at a very rudimentary stage. The system has so far concentrated on the English-Speaking Caribbean and has not yet been extended to include the Haiti, the Netherlands Antilles, Surinam, or the Spanish-speaking islands, but a recent visit of the Project Leader to these countries is expected to initiate participation.

USE OF THE SYSTEM

Services have been mainly to the policy makers, technical personnel, and to some of the researchers attached to the Ministries of Agriculture and to the national and regional research institutions. Some librarians, and farmers also receive services from the system. Potential users have been in some cases unaware of the existence of the system, and in other cases delivery of bibliographic references only in Member States where documents are not immediately accessible, might also have contributed to the low levels of use.

PROJECT/SYSTEMS OUTPUTS AND SERVICES

CAGRINDEX scheduled for quarterly issue has not been regularly issued, and its coverage of grey literature and original research reports from the Member States is limited. A more frequent and up to date publication would be more valuable to users who wish to be kept informed of the recent research and other development activities undertaken in the region. The occasional newsletter CAGRIS Update also provides users with information on the services available from the system, and describes current developments.

Special bibliographies are prepared and distributed to users and The Union List of Serials in agriculture is being finalized for distribution to libraries.

The CAGRIS Coordinating Centre provides access to external databases, AGRIS and those available through DIALOG, and referral to specialists is mainly based on information held in the database of current research, CARIS (Caribbean).

The system's services are used for current awareness, as well as for problem solving and decision-making, and requests are received for additional information based on the system's publications.

PROMOTION OF THE SYSTEM

This has been mainly through user education seminars held in each country, a brochure distributed to users, and the occasional newsletter.

EVALUATION OF THE SYSTEM

There has been no formal evaluation of the system although the current programme officer had meetings in each of the countries with information personnel and agricultural officials to determine the effect which CAGRIS has had in the Member States.

IMPACT OF THE SYSTEM

CAGRIS as a system, and the information which it has provided, has filled a gap in agricultural information services in the region, and supports the queries received through national focal points. These are mainly answered by provision of bibliographies,

and subsequently by documents. In some cases, as in the case of an insect which Montserrat wished to be identified, the system provides referral to the specialists at the UWI. Needs are also anticipated based on the nearly 300 profiles which were prepared during the seminars in late 1986, but which now require updating. An example of the multiplier effect of the system on agricultural production in the region has also been demonstrated in Montserrat where the efforts of the Ministry of Agriculture and the Caribbean Agricultural Research and Development Institute for producing white potatoes for local use, were supported by systematic information services, to the researchers.

CAGRIS, as an agricultural information system has supported national development priorities but efforts at omnibus collection as against intensified collection and flagging of documents in priority areas of agriculture has affected its effectiveness.

SUSTAINABILITY

The UWI has made provision for taking over the functions of the clerical project personnel, and the Agriculture Librarian has assumed responsibility for services to the users of CAGRIS. The UWI Library would require additional staff, however, to maintain the current profiles, and to provide the services to all the potential users.

The project supporting CAGRIS included funding for the purchase of information materials, communications, and the cost of online searching. These have not yet been incorporated in the UWI's budget or into the budgets of the national centres, and online searches done through CTA currently offset some of the costs of online searching.

CONTRIBUTION TO BUILDING RESEARCH CAPACITY

CAGRIS has by its services to researchers, begun to contribute to building research capacity in agriculture in the region. The regional database would need, however, to be more systematically developed to ensure that researchers can indeed benefit from previous research, particularly that done by the universities, and research institutes.

NATIONAL AGRICULTURAL INFORMATION SYSTEMS

Two IDRC-supported projects which predated CAGRIS should have assisted Jamaica and the Dominican Republic to upgrade their national bibliographic services in agriculture, and to participate in AGRINTER, and subsequently in CAGRIS. These projects were developed in almost a standard format by the Inter American Institute for Cooperation in Agriculture, for developing the national focal points for AGRINTER in Central and South America and in the Caribbean.

JAMAICA National AGRINTER Centre

JANUARY 1981 - APRIL 1987

HOST INSTITUTION: JAMAICA MINISTRY OF AGRICULTURE

PROJECT LEADER: MRS. SWARNA BANDARA

This project was expected to enable the Ministry of Agriculture to capture, store and disseminate current agricultural information and to participate more effectively in AGRINTER and AGRIS.

PROJECT DEVELOPMENT

The objectives of this project were aimed at developing a library which would serve as the national agricultural library. As potential users were the scientists, planners and administrators, it was expected that needs could therefore be identified according to the programs of the national agricultural research and development institutions. The objectives of the system can logically be related to the responsibilities and functions of the Ministry, and this was therefore the appropriate institution of developing such a system.

PROJECT MONITORING

The project was not able to carry out several of its objectives, and services were mainly to the officers of the Ministry rather than to the entire agricultural community. IDRC's program officers provided assistance during monitoring missions, and in addition the librarian attended an IDRC sponsored-meeting on management of agricultural information projects.

There seems to have been no regular procedure for reporting within the Ministry, which would have helped in the monitoring of the project. After the initial assistance from IICA in project preparation, this institution played no further role in monitoring the project.

PROJECT ACTIVITIES / EXECUTION

During this project, there was some improvement in the services to the Ministry officials, and this provided information services for decision making, and contributed to building research capacity. The crucial role which an information service plays particularly in supporting research was the main contributor to the achievement of some of the project objectives. The fact that a Librarian had to be appointed after the project was approved and the changes in the administrative responsibility for the library, from the Data Bank to the Research Division, and the resulting hiatus in direction, might have contributed to the failure in achieving several of the objectives.

USE OF THE SYSTEM

The target audience of the system, the potential user group, includes all national agricultural planners, scientists, and administrators, but during the project main users have been the staff of the Ministry Headquarters. The present services however are mainly related to circulation of texts, on request, and this centre therefore cannot be said to be offering any specialized or dynamic services.

PRODUCT / SYSTEM OUTPUTS AND SERVICES

The Current Awareness bulletin is the main output of the system, but it is not regularly distributed to users and potential users. The Guide to the Library's services which should have been produced as part of the project has not yet been completed. Although access to the external databases has been possible through CAGRIS, this has not been used as a service to the researchers.

PROMOTION OF THE SERVICES

There has been no promotion of the system's services.

EVALUATION OF THE SYSTEM

Although there have been monitoring visits by IDRC project leaders, there has been no formal evaluation of the system.

IMPACT OF THE SYSTEM / PROJECT

The system has been developed and maintained, but it cannot be said to have had a significant impact on the use of information by the target audience. In particular the researchers at the eight rural research stations are not regular users of the system.

There has been some participation in AGRINTER, and subsequently in CAGRIS, and in addition Jamaica is currently preparing input for CARIS (Caribbean).

GAPS

Although the system is aimed at decision makers, planners, researchers and administrators, the documents held and those which should be collected, are potentially of value to the users at the rural research stations, agricultural boards, corporations etc. and those in private sector firms. In addition to the need to study users needs more closely, and to focus on developing collections in these areas, there is also the need to develop and use delivery mechanisms appropriate to the needs of practitioners.

DOMINICAN REPUBLIC National AGRINTER Centre

FEBRUARY 1982 - FEBRUARY 1985

HOST INSTITUTION: SECRETARIA DE ESTADO DE AGRICULTURA

PROJECT LEADER: SR. RAMON PEREYA

This project also sought to improve national participation in AGRIS, through the national agricultural information network.

PROJECT DEVELOPMENT

This project was also developed with the assistance of IICA and in this case was executed with technical and administrative support from IICA, as well as from IDRC. The project supported an existing national network of 14 institutions, and as the coordinating agency for agricultural development, the Secretaria de Estado de Agricultura, (SEA) the project activities are closely matched to the objectives of the SEA.

PROJECT ACTIVITIES

The SEA had been designated the national focal point for AGRINTER and prepared input records for the regional database. As the project developed, the computerized database was also developed using the main computerized system of the SEA.

SUSTAINABILITY

The Human resources component of this project consisted of short - term consultancies, which presumably was not intended to be continued by the SEA. Coordination of the network was, however, expected to be continued, as well as the development of the computerized database. Both of these have continued although the single professional in SEA is not able to effectively manage the coordination of the network, as well as service to members of the organization.

CARDILS
JANUARY 1981 - APRIL 1985

HOST INSTITUTION: CARIBBEAN AGRICULTURAL RESEARCH AND
DEVELOPMENT INSTITUTE (CARDI)

PROJECT LEADER: MISS. PATRICIA THOMPSON

This project sought to help CARDI to satisfy the demands of its scientists in field locations in the various islands. It therefore provided support for the establishment of a literature service to Caribbean agriculturalists, particularly up-to-date information on commodities and production practices relevant to the Caribbean.

CARDILS is another bibliographic information system, focussed specifically on services to the network of CARDI scientists at CARDI Headquarters, and at the CARDI Country units in the Member States.

PROJECT DEVELOPMENT

This project was developed in consultation with the University of the West Indies, with a view to improving the information services to CARDI's researchers. Assistance from IDRC's project officers helped the CARDI personnel to define the activities to be included within the project. These as finally defined were an integral part of CARDI's activities, and therefore the system seems to have been exactly matched to CARDI's needs and capabilities.

PROJECT MONITORING

Support for the CARDILS project enabled the Institute to establish a scientific literature service, and to provide special publications to CARDI scientists on commodities and production practices specific to their research programs. The visits by IDRC's project officers, as well as the reports required by the project agreement were the main means of monitoring the project which lasted from March 1981 to April 1985, including an extension and supplemental grant.

PROJECT ACTIVITIES / EXECUTION

CARDILS main service was to CARDI's 64 professional staff, but as the information being provided were relating to national research activities, it was also possible to provide information to technical officers in the national systems. Improved services were mainly demonstrated by the provision of more specialized services than would have been available in the past including, including SDI and the results of online searches provided through IDRC's Library.

USE OF THE SYSTEM

The services were mainly targeted at the researchers from CARDI Headquarters and national offices, but in addition they have also been used by scientists from the Ministries of Agriculture.

Services to users can be summarized as follows:

In-person queries:	5,000
Literature searches:	
Manual	600
Computerized	30
Journal articles supplied:	540

PROJECT / SYSTEM OUTPUTS AND SERVICES

The project provided the following regular outputs to all users: A monthly Acquisition List, A Current Awareness List of Citations and specialized bibliographies. In addition there was provided through IDRC online access to bibliographic agricultural databases. These services were mainly used for current awareness, as well as decision making and problem solving.

PROMOTION OF THE SYSTEM

As the target users are a fairly homogeneous group, promotion of the system's services has been through the regular meetings of the Institute, and through visits by the CARDI documentalist to the Country Units in the Member States.

EVALUATION OF THE SYSTEM

There has been no formal evaluation of the system, but over the project period the two missions which reviewed the research and administrative aspects of the Institute, also considered the services of the documentation centre.

IMPACT

CARDILS as the first such service to CARDI staff, enabled the scientists to have a more effective basis for information services than was previously possible. This was particularly evident in the country offices where scientists had not previously had access to any information services. The project also provided the basis for what is now the expanded program of agricultural research and development which CARDI is now undertaking.

SUSTAINABILITY

CARDI has been able to sustain the services provided by the project and in particular the position of documentalist which had been supported by IDRC through the first three years of the CARDILS project, has since 1986 been included in CARDI's core budget. In addition an agricultural graduate with a diploma in extension work has also been recruited to the staff of the Documentation Centre since January 1989.

The information materials previously provided by the project are now being provided by the Institute's budget.

CONTRIBUTION TO BUILDING RESEARCH CAPACITY

CARDILS has made a major contribution to building the information aspect of CARDI's research capacity, and also enabled the Institute to establish linkages for exchange of information with specialist agricultural research institutions.

**ASSOCIATION FOR CARIBBEAN TRANSFORMATION
AGRICULTURAL MARKET INFORMATION SYSTEM**

**PHASE I: JANUARY 1984 - JANUARY 1987
PHASE II: FEBRUARY 1986 - FEBRUARY 1989**

HOST INSTITUTION: ASSOCIATION FOR CARIBBEAN TRANSFORMATION

PROJECT LEADERS: LOUIS BERTRAND AND ALAN WILLIAMS

In Phase I of this project, ACT developed a pilot information system to provide current market information on domestic food commodities in Antigua, Dominica, and Trinidad and Tobago with a view to identifying market opportunities and to promoting regional trade. In Phase II a service for small farmers, traders, and marketing institutions was developed.

The support of this organization enabled the development of an information system to provide current market information on domestic food commodities, in Antigua, Dominica, and Trinidad and Tobago, with a view to identifying market opportunities and to promoting regional trade.

PROJECT DEVELOPMENT

As a result of its experience in supporting small farmer development in several countries in the Eastern Caribbean, ACT identified a need for information on production forecasting and sources of data on agricultural marketing. Subsequent discussions with IDRC helped to clarify the project objectives.

PROJECT MONITORING

ACT was able to achieve all the stated objectives of the project. The organization's internal monitoring, its log frame and reporting structure, as well as the flexibility of IDRC's project reporting format, provided a suitable basis for the monitoring of this project.

PROJECT ACTIVITIES / EXECUTION

The ACT Information System has developed an information service for decision making for agricultural production, and has subsequently established a link with the credit institutions, as well as ACT's provision of credit which has created an increased awareness of the organization and its services. Improved services are now demonstrated by more frequent demand for information, more specific requests, and the tendency to request full farm plans, as well as the willingness to pay for information.

USE OF THE SYSTEM

Of the potential user community of researchers, agricultural planners, extension workers, librarians, and small and large

scale farmers, the actual user group has rarely included any of the 40,000 small farmers who comprised the main target audience. The second phase attempted to redress this problem through the Extension Services, farmers organizations, hucksters associations, marketing institutions, and credit organizations. In Phase I ACT also found that while planners from the private sector increasingly used the services their public counterparts were less regular users.

The delivery format - ACT Bulletins, and the lack of outreach services, to government personnel are two factors which seem to have contributed to non-use of the information services by this group.

PROJECT / SYSTEM OUTPUTS AND SERVICES

Response to requests is provided within 24 hours, with the timeliness being dependent on the type of information required. Responses to requests have been customized wherever possible, but appropriateness of the delivery mechanism, has however been varied according to the target groups. The information gathered to answer previous queries has also been documented for future use.

Some users also have access to the online database, ACT Dominica on a regular basis, as well as bona fide intermediaries. The fact that the software used does not prevent viewers from changing data has discouraged ACT from making online access to the database more widely available.

Users of the ACT Information Service also have access to the CARISPLAN database, as well as the quantitative data of the Central Marketing Authority, the Central Statistical Office, the Fisheries Division, and the Meteorological Office of Trinidad, and to the databases of the International Trade Centre through the Export Development Corporation.

Although the use made of the system's bulletin has not been systematically monitored, the customized services are directly requested in relation to a particular production situation, and consequently are used directly for decision-making and problem-solving.

PROMOTION OF THE SYSTEM

Distribution of the ACT Bulletin is the main means of promoting the services, and this is used along with newspaper advertisements, demonstration diskettes, presentations to meetings such as the workshops of the Caribbean Agricultural Extension Project, and a radio program to make users aware of the services available.

EVALUATION OF THE SYSTEM

There has not been a formal evaluation of the system, but the evaluation of ACT by the Directors, included a review of the

information services.

IMPACT OF THE SYSTEM

The service provides a basic current awareness service to the agricultural producers of the three countries. As there is currently a return to agriculture this has resulted in increasing requests for information and feasibility studies on the production of certain food crops. Needs which are articulated are answered by customized services, and the bulletin is regularly modified in response to the anticipation of changing needs. In addition to direct services, the ACT service has also had a multiplier effect in areas where the information services have been used.

The system has also supported national development priorities, as agriculture has in the past five years returned to being a priority in Trinidad and Tobago, while having always been so in Dominica. In Antigua and Barbuda the service has also been able to contribute to the services for increased import substitution of food.

The system has also influenced the development of the national agricultural information systems, particularly in the area of improving access to data, and rationalization of the database structures. It is to ACT's credit that the Central Marketing Authority of Trinidad and Tobago, and the Caribbean Agricultural Marketing Information System (CAMIS) which is being developed by the CARICOM Secretariat, have incorporated the methodologies developed by ACT into the national and regional systems currently under development.

The use of microcomputers, in this area has been almost spearheaded by this system, and in addition training provided by ACT particularly in Dominica had helped to ensure that the systems in place are developed and used.

As demonstrated by ACT's experiences, the main gap in the system is the need for increasing the awareness by the small farmer community of the availability of agricultural information and such the project leaders have used fora such as the workshops of the Caribbean Agricultural Extension Project, and a radio program in Trinidad to make users aware of the services available.

SUSTAINABILITY

ACT the first NGO to be supported by the ISD in the Caribbean, has very creditably demonstrated its ability to sustain an information system outside the project period. Systematic access to the database and services has continued, as well as extended ability to generate income, which at present is being done through the development of an agricultural credit service for low-income members of the agricultural community.

INDUSTRIAL DEVELOPMENT
CARIBBEAN TRADE INFORMATION SYSTEM (CARTIS)

JANUARY 1986 - JANUARY 1987

HOST INSTITUTION: CARICOM SECRETARIAT

PROJECT LEADER: MRS. CAROL COLLINS

PROJECT DEVELOPMENT

This project was developed by the CARICOM Secretariat. It was prepared in consultation with the Ministries of Trade in the Member States, and as the Secretariat has a role of coordinating trade and customs policy, as well as export promotion, the system was logically based in the Secretariat. Discussions between the Secretariat officials and the ISD, helped to clarify the objectives of a possible pilot project.

PROJECT MONITORING

Most of the project objectives were accomplished, except the evaluation of the system's services in relation to the users' needs, and ability to access the services.

PROJECT ACTIVITIES / EXECUTION

The pilot project for establishing CARTIS provided initially, a basis for improving and testing services, and for training staff at the Secretariat, and in Jamaica and Saint Lucia. This has therefore improved the indigenous capacity for providing a computerized trade information system, on completion of the pilot project. The CARICOM Secretariat continued the development of the system, and on completion of the pilot project, extended participation to all the other Member States.

USE OF THE SYSTEM

The system is not yet used on a regular basis as only the structure has been developed and the data is now being collected and systematically entered. The potential user community includes manufacturers, importers, and exporters.

PROJECT / SYSTEM OUTPUTS AND SERVICES

The initial design of the system anticipates computerized databases accessible online between Member States. While the technology for database development is in place and only needs to be used, the development of online access still needs to be investigated, installed, tested, and implemented.

IMPACT

At present the main impact of CARTIS has been that of making some

importers, exporters, and export promotion agencies, and well as local entrepreneurs aware of the potential role of trade information services, and of the value of intra-regional trade information services which are not presently available through any other source.

SUSTAINABILITY

The national and regional components of this project have the potential to be self-sustaining, through the payment for services mainly as the larger users presently pay for information services, and, because the results of information can be very readily related to financial profits.

Salaries and activities financed by IDRC, under the pilot project have now been absorbed by the CARICOM Secretariat, and the pilot system has been extended with support from the United Nations Development Program to a full regional system. The national nodes based in the Ministries of Trade, have allocated staff to be responsible for the national systems and services.

The UNDP project provides resources at the CARICOM Secretariat for a Project Manager, Trade Information Specialists, and the services of some systems personnel, and provides equipment for running the system at the regional centre, and in the national focal points - Ministries of Trade, national export agencies, and in some cases additional access points will be located in the Chambers of Commerce.

Some assistance has been provided to the national centres in establishing the computerized systems, and in identifying users' needs. This aspect would in all cases require additional resources to ensure that the appropriate levels of staff can be appointed, and that the identification of users' needs can be effectively documented.

THE CARIBBEAN TECHNOLOGY CONSULTANCY SERVICE

DECEMBER 1984 - DECEMBER 1988

HOST INSTITUTION: THE CARIBBEAN DEVELOPMENT BANK

PROJECT LEADERS: DR. JEFFREY DELLIMORE AND MISS. YVONNE HALL

This project enabled the Caribbean Development Bank to strengthen and extend its Caribbean Technology Service. The CTCS provides advice and information to local entrepreneurs in order to improve productivity, pricing, quality and marketing.

PROJECT DEVELOPMENT

The concept of CTCS was influenced by TECHNET Asia, and the system which was developed aimed at using resources available in the region, to assist in the development of small industry while saving foreign exchange. Consultation with potential focal points - a meeting of the representatives of the Development Finance Corporations, and resource organizations - helped to clarify the needs of the member states and to determine an appropriate methodology. The fact that the host institution the Caribbean Development Bank, and the national focal points, are all active in industrial development, also helped the system to develop along very practical lines. Early grants from UNDP, and USAID, supported some of the preliminary activities, and subsequently the project proposal to IDRC was based on the earlier experiences.

PROJECT MONITORING

Initially it was found that the assumptions on which the pilot project was based were not all correct as the Research Institutes did not always have resource persons with the appropriate expertise, and experience, and that the system needed to be modified to include resource persons from the public and private production enterprises.

In addition to the regular reporting required by IDRC, regular meetings of the CTCS Advisory Committee helped to keep the objectives in focus and to identify needed modifications in the method of operation.

PROJECT ACTIVITIES / EXECUTION

The CTCS has had a role in improving small scale enterprises, in building research capacity, and in fostering the sharing of information within the sector.

Although there are the requests for information which can be supplied in a documented form, most of the services have been of the consultancy type. The current Project Leader is concerned

about maximizing the experience, and the information held by the system, and is now organizing the extraction of information from the consultants' reports, for wider dissemination to the target audience.

The Extension Service whose officers travel mainly to the OECS is the most dynamic aspect of the system. It relies however on the Development Banks or Development Finance Corporations, and the Public Libraries, for ongoing promotion of the system in each country, and consequently knowledge of the system varies according to the interest / energy of the officers assigned this responsibility.

Although the CTCS was intended to be a service to all of the Borrowing Member Countries of the Caribbean Development Bank, and although it is potentially available to the CDB's Borrowing Member Countries, most of the clients are in the OECS countries, and the resource persons, tend to be drawn from Trinidad and Tobago, Barbados, and Jamaica.

The project coordinator has experienced some difficulty in screening consultants, and clients. This is expected to be the role of the national focal points, but in some cases arrangements for consultants has been more protracted than would be desirable. The system at present is funded by the Bank, and it is planned that it will be maintained as such particularly for assisting the clients of the Development Banks of the Borrowing Member Countries.

Indicators of improved services include repeat requests, as well as requests at the earlier stages of planning or development of a particular project. CTCS is now required to assist in feasibility studies as compared to the earlier stages of the system where requests were mainly for trouble shooting.

USE OF THE SYSTEM

The initial contacts in each country of the CTCS are the loan officers of the Development Banks, and the public librarians who request resource persons for seminars and other information transfer activities. It was found during the life of the project that the system user interaction was most effective with a one to one discussion, as there was an unwillingness to discuss information needs at meetings particularly as potential competitors might be present.

The service has been considered satisfactory by the majority of clients, and one hotelier who had used the system suggested that the client might also benefit from a return visit to the enterprise of the resource person.

CTCS began with links to the public libraries, the most visible aspects of the national information system, but found that while the libraries played a valuable role in making their users and

some of their potential users aware of the services of the system they were not always in touch with small entrepreneurs and in addition the Development Banks were assigned the responsibility of identifying users.

Although the CTCS was intended to be a service to all of the CDB's Borrowing Member Countries, and although it is potentially available to the CDB's Borrowing Member Countries, most of the clients are in the OECS countries, and the resource persons, tend to be drawn from Trinidad and Tobago, Barbados, and Jamaica.

The project coordinator has experienced some difficulty in screening consultants, and clients. This is expected to be the role of the national focal points, but in some cases the location of consultants has been more protracted than would be desirable. The system at present is funded by the Bank, and it is planned that it will be maintained as such particularly for assisting the clients of the Development Banks of the Borrowing Member Countries.

Services provided by the CTCS are summarized as follows:

January 1985 - December 1988

230 Documents supplied
196 Items of repackaged information supplied
6 Repackaged documents
112 Missions for advisory services (including seminars)

Indicators of improved services include repeat requests, as well as requests at the earlier stages of planning or development of a particular project. CTCS is now required to assist in feasibility studies as compared to the earlier concentration on trouble shooting.

EVALUATION

The CTCS is a system which has demonstrated dynamism, has been doing its internal evaluation, and has been able to modify its structure and operations, particularly by increasing its range of delivery mechanisms, - originally documents - now advisory services as well as documents, and repackaging of consultancy reports to make the significant information more widely available.

CARIBBEAN ENERGY INFORMATION SYSTEM

JANUARY 1987 - JANUARY 1990

HOST INSTITUTION: SCIENTIFIC RESEARCH COUNCIL (JAMAICA)

PROJECT LEADER: MRS. MONA WHYTE

The system is expected to facilitate the sharing of information on new and renewable sources of energy in the Caribbean.

PROJECT DEVELOPMENT

A meeting of the information specialists and energy planners from the Member States, reviewed the energy information sources available and proposed the development of an energy information system which would provide information services on new and renewable sources of energy.

A subsequent review supported by IDRC, the Commonwealth Science Council and Unesco, was undertaken to determine the users' needs, and appropriate services.

The Scientific Research Council of Jamaica was selected after this review as the most appropriate institution and the then Permanent Secretary responsible for the Scientific Research Council who was also a member of the team, agreed to accept the responsibility of hosting the system which seemed to be in line with the purpose and current activities of the Scientific Research Council.

PROJECT MONITORING

In the initial development of the CEIS, there was some 6-8 months delay in activating the system, and this mainly resulted from the fact that the Commonwealth Science Council required each Member State to sign an agreement with the Commonwealth Science Council to participate in the system, and to designate a national focal point and liaison officer. These bureaucratic procedures caused some difficulties as some officials in the Member States had difficulty reconciling the 'new' system proposed by the Commonwealth Secretariat with the Caribbean Energy Information System in which they had already agreed to participate.

PROJECT ACTIVITIES \ EXECUTION

The regional centre has attempted all the objectives except that of providing medium-term training in energy information. In addition to the initial administrative delays there were delays in obtaining equipment and in producing and distributing the required outputs.

Some of the difficulties in achieving the objectives, can be attributed to the damage from the hurricane of October 1988, but others relate to the fact that the project is operating

discretely rather than as an integral part of the Scientific Research Council, and consequently has not been able to benefit from the considerable experience of the SRC in management of research projects, and the institution's links in the region.

The microfiche collection is being developed by the SRC but the delays in producing and despatching microfiche in response to requests seems to make the document delivery unreliable. Liaison officers of the national focal points have also expressed the need for microfiche readers in the national centres.

The question and answer service is not yet fully operational, and the directory of research has been collected but not yet published. Online access to Energyline is possible but has only been used experimentally.

A possible contributor to the problems of the CEIS, is the fact that the project had been initially drawn up with 25% contribution of 1 technical officer, 1 librarian, 2 deputy librarians, 2 research officers, 2 library technical assistants and 2 secretaries, all from SRC's Technical Information Division. While it is difficult to determine how the time is spent, it seems that there is not adequate supervision from the Technical Information Officer responsible for the Division, and the 1 librarian, 1 deputy librarian, and clerical/ secretarial assistance is not an adequate allocation, for managing a regional system, especially at the early stages.

USE OF THE SYSTEM

Researchers, policy makers, energy planners, and foreign consultants are the main users of the system, and the lack of awareness, and the form of the information delivered possibly contributes to the low level of use.

The delivery of documents requested has been on microfiche, and while this is a space saving method users have not been able to use the microfiche when received.

The main publication Energy Abstracts, as well as the Monthly Petroleum Review, have been used mainly for Current Awareness, although the OECS Secretariat as the sub-regional centre responsible for collecting and disseminating data over the past five years, has been requested by the governments to advise during negotiations for petroleum prices.

PROMOTION

The recent meeting of liaison officers in April of this year outlined a plan of action which is to be implemented shortly.

IMPACT OF THE SYSTEM

There seems to be a concern with collecting data, rather than a balance of this concern with dissemination of the information

collected, and other relevant energy information. The original survey of users' needs which was conducted in 1984/5 is likely to be outdated, and certainly there is need for an updating of this information, and a more active system of dissemination of energy information relevant to the region.

SUSTAINABILITY

It is expected that the SRC and the regional governments will continue funding of the system. SRC currently covers most of the staff and the telecommunications costs, but the other project positions, still need to be covered when the project ends.

OLADE has also indicated interest in working in the region, and has re-activated a system design which had been discussed in 1984/5. Some of the member states have indicated that the services offered by OLADE, particularly the assistance in computing energy balances, seem more relevant than those of the CEIS, which seems to be concentrating on collecting energy information rather than on its dissemination.

CARIBBEAN PATENT INFORMATION NETWORK

PHASE I JANUARY 1985 - JANUARY 1987

PHASE II OCTOBER 1987 - JANUARY 1990

**HOST INSTITUTION: ECONOMIC COMMISSION FOR LATIN AMERICA AND THE
CARIBBEAN. CARIBBEAN DOCUMENTATION CENTRE**

PROJECT LEADERS: MRS. WILMA PRIMUS AND MRS. JACQUELINE ARCHER

This project is the culmination of work on patent information which was done by WIPO and ECLAC between 1981 and 1985. Preparatory work included technical assistance and training by WIPO in 1981, discussion at the annual meeting of the CDCC, and a survey of the needs of potential users. The nature of CARPIN was therefore determined through regular meetings of ECLAC and the Caribbean Development and Cooperation Committee

The system's objectives - providing patent information to support industrial development, do not directly match those of ECLAC, and potential entrepreneurs are unlikely to consider the ECLAC office as a first source of information.

PROJECT MONITORING

As this project was based in ECLAC, it built on previous experience in project development and project monitoring, and this has facilitated the development of the project within its objectives.

PROJECT ACTIVITIES

The network which has been established consists of the Regional Focal Point at the ECLAC Sub-regional Headquarters for Latin America, and the national focal points in the Registrar's Offices in each country. A database is being developed of patents in force in the Caribbean since 1962. Access to patent information has required, as anticipated in the project, searches to be also forwarded to the WIPO Headquarters in Geneva, and to the Canadian Patent Office.

BUILDING OF INDIGENOUS CAPACITY

In addition to the training of the Project Manager, and the Head of the Unit, there has been at least one seminar in each country, for potential users of patent information, as well as training of Registrars in the management of patent information. The lack of development of the national patent offices has however reduced the level of development of the system and services.

USE OF THE SYSTEM

Small and large industrialists have used the regional system directly through the ECLAC office or through the National Registries. The time lapse of 6 weeks to 2 months in satisfying

requests sent to the Canadian Patents Office, is likely to have had an impact on the repeated use of the system. Online access to the database is available in Trinidad and Tobago, and a printed index corresponding to the database is being prepared for distribution to national nodes.

PROMOTION OF THE SERVICES

The seminars for users have been the main means of promotion of the system, and in addition user surveys and occasional television programs have been used to create awareness of the services.

IMPACT

CARPIN has made an impact on the development of national organizations which require patent information. Some of the main users, as institutions have been The Scientific Research Council of Jamaica, the Jamaica Promotions Organization, and the Registrar of Barbados. The small scale entrepreneurs have included, food processors, and producers of small implements. The production of a plastic spray bottle which can be directly attributed to the system has resulted in savings of foreign exchange on the part of the producers, and the national economy.

A additional area of impact for CARPIN - dissemination of information through the Caribbean Technology Consultancy Service - has only recently been explored, and it is anticipated that there will be scope for direct information services to clients in industry.

SUSTAINABILITY

The position of Patent Information Specialist is to be absorbed by ECLAC but this has not yet been possible as a result of the freeze on the UN salaries.

While users have indicated a willingness to pay for services, it has not yet been possible to institute any charges, as the United Nations System has not yet worked out a mechanism to permit units such as the Caribbean Documentation Centre to charge for information services.

CONCLUSIONS

As a result of missions to 22 project sites, and discussions with 24 project leaders and some 42 users, it was possible to identify certain implications for the future, and factors which IDRC should take into consideration in order to increase the cost effectiveness of the ISD investment, nearly 8.5 million CAD in the past ten years.

The Centre has been found to have been very responsive to needs expressed by potential recipients, and to have assisted with professional advice along with financial support.

The majority of projects have enabled the host institutions to develop information systems and services for decision making, and while 14 grants have been made for regional projects, there have also been 18 grants to national institutions, and 6 grants to regional institutions. The major impact has been in the support for development of regional information systems. As these have been based on existing mandates, and institutions, the systems have had an established political base on which to build, and consequently IDRC's support in addition to the development of national and regional infrastructure, has facilitated the sharing of information between national nodes of the regional systems.

SUCSESSES

The projects supported by ISD in the early eighties, were, where appropriate, supported in several phases, and this has enabled the systems to be more effective in the long term. CARISPLAN has had significant success initially in developing the first computerized regional database, and in simultaneously providing training, and advisory services for the development of special libraries and documentation centres. The training provided by CARISPLAN in the use of appropriate methodologies and technologies was to the advantage of all national systems and also facilitated the development of subsequent regional systems.

The National Information System of Jamaica can be considered a successfully implemented project. It was based on a plan prepared by a group of librarians, information specialists, policy makers and planners which had been formed into a government appointed board - NACOLADS, (The National Council on Libraries, Archives and Documentation Services). This system has been supported by a two-phased project which has facilitated the development of the national information system in Jamaica, and the development of the component units. The support by the Centre has enabled the information system in Jamaica to evolve from a series of units, to a relatively strong system, and a recently approved ISD grant will permit the development of a public education program for informing the users and potential users of the services available from the various units of the national information system.

As a high point in NACOLADS activities, the Executive Secretary has recently been appointed by the new administration in Jamaica to chair the Task Force on Information which has responsibility for the input to the National Development Plan.

The Eastern Caribbean Central Bank Debt Management Recording System although not completed also seems to be a project which has successfully implemented. This project was also based on the need for assistance in an activity for more efficient debt recording and management, which the Bank and its 8 Member States were preparing to undertake.

From the point of view of the main target audience, successful system development is likely to be measured in terms of the increased access to information. In the areas of agricultural information, where the information support from CAGRIS, can be seen to have supported the introduction and applied research in white potato production in Montserrat, and St Kitts and Nevis, is an example of the role which the information systems have played in the past decade.

In the industrial area the OECS Secretariat which began its energy accounting system as a precursor to the Energy Information System, has been able to use the information which it has gathered and analyzed on petroleum prices, to assist Member States in negotiations with petroleum companies.

FACILITATING MECHANISMS

Other successes of ISD's support can be seen in the support of system design and of pilot projects, such as the Caribbean Trade Information System (CARTIS) and the Animal and Plant Health Reporting System. The Pilot Project for CARTIS enabled the CARICOM Secretariat, and the Member State to design and test the regional system in Jamaica and in Saint Lucia, and to begin development of a full-fledged Trade Information System which has now been funded by UNDP for the next three years.

FAILURES AND PROBLEMS

This portfolio has not been without its problems and failures. In the case of the Barbados Library Archive and Information Network, organizational changes seem to have prevented the Director of the Network from undertaking the major objective of coordinating the government libraries, while the project with the University of the West Indies Institute of Social and Economic Research was significantly delayed by the implementation of the technological aspect of the system.

GAPS

Implications for maximizing the potential benefit of the existing systems, are evident in completing the activities which related to the objectives of the systems. Intervention by ISD staff

while recognized as a delicate issue, needs to be considered as a means of meeting the needs of the recipients, and helping to keep the projects on target.

IMPLICATIONS FOR THE FUTURE

COLLABORATION IN PROJECT DEVELOPMENT

The changing financial situation in IDRC and with other donor agencies, is likely to require increased collaboration among the Groups in the Information Sciences Division, as well as collaboration with other the other Divisions of the Centre, and other donor agencies. There are several donor agencies presently working in the Caribbean, and as in the case of CFTC, requirements for additional agreements and for reporting can lead to loss of valuable time within the life of a project.

INFORMATION TECHNOLOGY

Telecommunications has been playing an increasing role in the development of information systems, and in communication between users. The fact that the Caribbean countries are scattered islands has emphasized the need for improved telecommunications facilities for disseminating information to users. The improvement on national telecommunications facilities, has been mainly evident between North America and the individual countries, and assistance for studying and upgrading intra-regional communications will be needed for improving access to the information held by the regional systems.

MARKETING OF INFORMATION SYSTEMS AND SERVICES

As the infrastructure has been relatively well developed, and as the potential users have indicated interest in wider access to the services of the systems, it seems necessary that ISD capitalize on its investment in the Caribbean, and support projects which would make the information held by these systems more available to users either by promotion of the systems through the mass media, or by repackaging and wider dissemination of the information from these systems in response to the needs of specific groups of users.

IMPORTANT SECTORS

Agricultural development and the maintenance of the environmental quality are two areas in which the Division could work in response to declared regional priorities. The requirements for agricultural information cover the range of information, services, and would need to cover marketing, production, and related research.

THE ROLE OF THE REGIONAL INSTITUTIONS

The role of coordinating information policy has been the responsibility of the CARICOM Secretariat, the Economic Commission for Latin America and the Caribbean, and more recently the Secretariat of the Organization of Eastern Caribbean States.

These organizations, should therefore be seen as the advisors, on regional policy, and on the development of regional information systems, particularly as the representation of these regional institutions on the Consultative Committee on Regional Information Systems, now provides a basis for consultation on these systems.

ANNEX I

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contribution through the International Development Research
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ANNEX II

TERMS OF REFERENCE

January 19, 1989

Centre File: 3-A-88-4228

Ms Fay Durrant
412 Republic Park
Providence P.O.
GUYANA

Dear Ms. Durrant:

Re: Offer of Consulting Contract

This letter will confirm that the International Development Research Centre wishes to retain your services as a consultant for a period of up to 90 days between 1 February 1989 and 31 May 1989 to evaluate the Information Sciences Division's support to Caribbean Information Network Systems and Services.

1. Terms of Reference

Under this contract, the services that are required of you are as follows:

- a) to review and study background materials i.e. projects supported by Information Sciences Division from 1970-1988; previous regional evaluations by sectors (agriculture, DEVSIS); regional networks in Latin America and the Caribbean; the "Regional Information System Strategy for the Caribbean to the year 2000"; and IDRC policy documents (PPR VII and VIII, PWB 1981-1988-89, With our own hands);
- b) to interview Division Program Management and key program staff in Ottawa and the Centre's regional office in Bogota: carry out structured interviews (based on questionnaires sent in advance) with project leaders/managers of information activities supported between 1978-1988 (including regional, sub-regional, national, and sectoral information systems); and informal confidential interviews with a cross section of the target audience of the information systems in order to determine relevance and a measure of impact. Those target audiences include senior policy-makers, planners, researchers, extension workers, and ultimate beneficiaries i.e. fisher-persons, farmers;
- c) to provide a brief document outlining the objectives of the IDS evaluation and the status of the information

systems and services in the Caribbean; and a final detailed report o the evaluation study to the Director of the Information Sciences Division of the Centre by 31 June, 1989

Signed by Martha B. Stone
Director
Information Sciences

ANNEX III

PROJECTS SUPPORTED BY IDRC ISD 1973 - 1989
CHRONOLOGICALLY

PROJECT	STARTED	ENDED	COST
FAMILY PLAN BIBL (C)	1973		11,200
TOTAL			
EDUCATION BIBL (C)	1975 JUN	1976 SEP	4,000
TOTAL			4,000
CARISPLAN I (C)	1978 JAN	1981 APR	146,465
TOTAL			146,465
HAITI VIDEO COMMUNICATION (C)	1979		35,250
TOTAL			35,250
CARISPLAN II (C)	1980 JAN	1985 APR	703,207
JAMAICA NIS (C)	1980 JUL	1984 JUL	440,000
TOTAL			1,132,207
CARDILS (C)	1981 JAN	1985 APR	334,720
JAMAICA (AGRIC) (C)	1981 JAN	1987 APR	66,000
TOTAL			400,720
DOM REP (AGRIC) (C)	1982 FEB	1985 FEB	68,600
BLAIN (C)	1982 SEP	1985 SEP	296,400
TOTAL			765,120
ST VINCENT (CARISPLAN)(C)	1983 NOV	1988 JAN	81,430
TOTAL			81,430
ACT I (C)	1984 JAN	1987 JAN	284,000
JAMAICA NIS II (C)	1984 MAR	1988 MAR	323,510
GRENADA (CARISPLAN) (C)	1984 SEP	1987 SEP	52,900
CTCS (C)	1984 DEC	1988 DEC	621,490
TOTAL			1,281,900

CARISPLAN & CARPIN (C)	1985 JAN	1987 JAN	478,520
CAGRIS (E)	1985 FEB	1989 FEB	380,655
CREOLE DISCOURSE (C)	1985 MAR	1987	78,800
WOMEN IN DEVT (C)	1985 MAY	1988 MAY	183,800
CUBA (NIS) (A)	1985 OCT	1988 JUN	173,000
HAITI (Training) (A)	1985 NOV	1989 SEP	106,600
ANIMAL HEALTH (C)	1985 DEC	1986 MAR?	31,878

TOTAL			1,423,253
CARTIS (C)	1986 JAN	1987?	87,530
ACT II (C)	1986 FEB	1989 FEB	384,435
TRINIDAD LAND REG (A)	1986 MAR	198?	49,800
DOMINICA (NIS) (A)	1986 JUL	1989 JUL	159,800
DOM REP (REM SENS) (C)	1986		83,365

TOTAL			764,930
CEIS (A)	1987 JAN	1990 JAN	447,450
ECCB (C)	1987 MAY	1989 MAY	115,000
INFONET (A)	1987 JUL	1990 JUL	520,000
CARPIN (A)	1987 OCT	1990 JAN	383,955

TOTAL			1,913,855
WILLIP (A)	1988		
T&T FISH MANGT (A)	1988 SEP	1990 SEP	229,625

TOTAL			229,625
UWI ISER/CGS	1989 AUG	1992 AUG	244,000

TOTAL PROJECT EXPENDITURES			8,443,915
(C)	COMPLETED		
(E)	ON EXTENSION		
(A)	ACTIVE		

ANNEX IV

PROJECTS BY TYPE OF INSTITUTION

DATE	GOVT	REG ORGS	UNIVERSITY	NGOS
1973			ED BIBL	
1975			FAM PLAN BIBL	
1978		CARISPLAN I		
1979				HAITI VIDEOCOM
1980	JA NIS	CARISPLAN II		
1981	JA AGRIC	CARDILS		
1982	DR AGRIC BLAIN			
1983	ST VINCENT			
1984	JA NIS II GRENADA	CTCS		ACT I
1985	CUBA NIS HAITI (TRAINING)	CARISPLAN & CARPIN CAGRIS CREOLE DISCOURSE WOMEN IN DEVT ANIMAL HEALTH		
1986	T&T LAND DOMINICA NIS	CARTIS		ACT II DR REM SEN
1987	CEIS	ECCB INFONET CARPIN II WILLIP		
1988	T&T FISH	UWI ISER/CGS		

ANNEX V

POPULATION DATA ON CARIBBEAN COUNTRIES

1.	ANGUILLA	7,000
2.	ANTIGUA AND BARBUDA	83,000
3.	ARUBA (included with NETHERLANDS ANTILLES)	
4.	THE BAHAMAS	237,000
5.	BARBADOS	256,000
6.	BELIZE	170,000
7.	THE BRITISH VIRGIN ISLANDS	13,000
8.	CUBA	10,214,000
9.	CAYMAN ISLANDS	21,000
10.	DOMINICA	78,000
11.	THE DOMINICAN REPUBLIC	6,531,000
12.	GRENADA	115,000
13.	GUYANA	989,000
14.	HAITI	6,936,000
15.	JAMAICA	2,409,000
16.	MONTSERRAT	12,000
17.	THE NETHERLANDS ANTILLES (including ARUBA)	271,000
18.	SAINT LUCIA	134,000
19.	ST KITTS AND NEVIS (ST CHRISTOPHER AND NEVIS)	48,000
20.	ST VINCENT AND THE GRENADINES	106,000
21.	SURINAM	386,000
22.	TRINIDAD AND TOBAGO	1,224,000
23.	TURKS AND CAICOS ISLANDS	8,000
24.	THE US VIRGIN ISLANDS	108,000
TOTAL		20,356,000

SOURCE: CIDA A developing world 1987

ANNEX VI

EVALUATION OF INFORMATION SCIENCE PROJECTS SUPPORTED BY IDRC
IN THE CARIBBEAN

This questionnaire seeks to gather information on the impact of the information system and its services, on the target audience defined by the project, and on any other users or beneficiaries of the information services provided by the system. Your cooperation in answering these questions will be very valuable in providing a basis for this evaluation.

QUESTIONNAIRE

MANAGERS OF INFORMATION SYSTEMS / PROJECT LEADERS
MANAGERS OF NATIONAL FOCAL POINTS

SYSTEM

REGIONAL COORDINATING CENTRE.

I. PROJECT DEVELOPMENT

- a. Please identify briefly the stages of system design and subsequent identification of project elements

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.....

- b. Was there consultation with representatives of national or related institutions?

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.....

- c. How were the needs of potential users identified?

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.....

- d. How do the system's objectives relate to those of the host institution?
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.....
.....
- e. What was the role of IDRC's assistance in system design, and project development?
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.....
- f. How did the procedures of IDRC and of other donors influence the system design and project development?
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.....
- g. How did the procedures of your organization influence the system design and project development?
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.....

II. PROJECT MONITORING

- How successful has the project been in execution of the objectives identified at the system design stage?
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.....
.....
- b. What has been the role of the assistance provided by IDRC's program officers in the monitoring of the development of the project(s), and the related system development?
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.....
- c. How have IDRC's procedures influenced your monitoring of and implementation of the project?
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.....

- d. How have the procedures of your institution influenced your monitoring of the project?
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.....

III. PROJECT ACTIVITIES / EXECUTION

- a. IDRC objectives in supporting information systems focus on improvement of systems and services for decision making, building indigenous capacity, and fostering information sharing. Please identify briefly the successes of this system in meeting these objectives.
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.....

- b. Can you identify any factors which might have affected the accomplishment of the project or system objectives?
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- c. Can you identify any changes in the host institution's policy, program or environment which might have affected the project schedule and achievement of the objectives?
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.....

- d. What indicators of improved services do / did you use to monitor the activities of the system, and its services?
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.....

IV. USE OF THE SYSTEM

- a. Please categorize your potential user community: The project target audience, as well as other members of the user community. NOTE: each user may fall into more than one category

- Researchers
- Policy makers
- Planners
- Extension workers, Development bank officers, librarians
or other intermediaries
- Farmers Small or large scale
- Industrialists Small or large scale
- Other (Please specify)

b. Please categorize the actual users of the system according to the following occupations : (Note each user may fall into several categories)

- Researchers
- Policy makers
- Planners
- Extension workers, Development bank officers, librarians
or other intermediaries
- Farmers - small or large scale
- Industrialists - small or large scale
- Other (Please specify)

c. NON-USERS

Please categorize your non-users according to the following occupations: (Note: each person may fall into more than one category)

- Researchers
- Policy makers
- Planners
- Extension workers, Development bank officers, librarians
or other intermediaries
- Farmers - small or large scale
- Industrialists - small or large scale
- Other (Please specify)

d. Please identify any factors which may / may have influence(d) non-use of the information system

.....

V. PROJECT / SYSTEM OUTPUTS AND SERVICES

- a. How do you rate the services provided by the system in relation to:

The time lapse between request and response?

Very Good____ Good____ Fair____ Poor____

.....
.....
.....
.....

The timeliness of the information provided?

Very Good____ Good____ Fair____ Poor____

.....
.....
.....
.....

- c. The appropriateness of the content?

Very Good____ Good____ Fair____ Poor____

.....
.....
.....
.....

- d. The appropriateness of the delivery mechanism

Very Good____ Good____ Fair____ Poor____

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.....

- e. Please list the publications of the system, and indicate the categories of users (as given in section IV) who receive them

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.....
.....
.....

- f. Is there online access to the system's database(s)
Please state the approximate number of users

.....
.....

- g. Please indicate the types of external sources of information to which the system, and therefore the user's have access. Please indicate also names of actual systems.

---- Bibliographic
---- Referral (Research in progress etc)
---- Quantitative
---- Advisory
---- Other (Please specify)

- h. Use made of services / outputs
Do you consider that the indexing and abstracting journals and other publications of the system are used for:

___ Current awareness
___ Reference - to answer specific queries
 Decision making
 Problem-solving
___ Other (Please specify)

- i. Does the system receive requests for additional information based on references from the system publications, online services, or other information services?

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.....

VI. PROMOTION OF SYSTEM

What measures are used for promotion of the system?

--- User education seminars
--- Promotion through mass media
--- Special audio-visual productions
--- Others (Please describe)

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.....

VII. EVALUATION OF SYSTEM

Has there been a formal evaluation of the system?

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.....
.....

VIII. IMPACT

- a. Please describe the impact of the system on the use of information by key decision-makers particularly those within the target audience.
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.....
.....
- b. Please describe briefly the system's response to articulated needs of the users in the target audience.
.....
.....
.....
- c. Please describe briefly the system's methodology for anticipating information needs of the target audience.
.....
.....
.....
- d. Please describe briefly the multiplier effect of the use of information provided by the system?
.....
.....
.....
- e. Please describe any identifiable benefits which result from the use of information provided by the system.
.....
.....
.....
- f. What kind of support do you consider that the system provides for national development priorities?
.....
.....
.....
- g. Please describe briefly the impact of the system on the development of national information systems and services and how effective have these been in improving access by your target audience to information?
.....
.....
.....

- f. What are the linkages with regional information systems and services and how effective have these been in improving access by your target audience to information?
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.....
- g. What are the bilateral or international linkages with information systems and services and how effective have these been in improving access by your target audience to information?
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.....
- h. How has the system influenced or had a valuable impact on the training of information professionals in the region?
.....
.....
.....
- i. Is there any indication that the system or project has had a valuable impact on increasing the use of appropriate information technologies?
.....
.....
.....
- j. Are there any Identifiable gaps which can be addressed by modification(s) of existing information system(s)
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.....
.....

IX. SUSTAINABILITY

How has / will the host institution been / be able to sustain the system's services on completion of the project(s) for developing the information system?
Please comment with particular reference to :

- a. Human resources - (particularly absorption of project posts)
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.....
.....

- b. Information materials - (particularly updating of project materials, serials etc)
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.....
.....
- c. Equipment (upgrading, servicing etc)
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.....
- d. Capital costs (Particularly buildings, furniture etc)
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.....
.....
- e. Recurrent costs (telecommunications and other costs of accessing and delivering information)
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.....
- e. Ability of system to generate income
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.....
.....
- f. How have the project and the system's services contributed to building research capacity?
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ANNEX VII

LETTER OF INTRODUCTION

February 1989

Dear Colleague:

Since 1976, the Information Sciences Division of the International Development Research Centre has been supporting the development of information systems and services in the Caribbean. As a result of activities supported in the last five years; the creation of regional sectoral or special subject information systems (i.e. energy, intellectual properties, agriculture); and the establishment of a Regional Consultative Committee on Information Systems, the Information Sciences Division wishes to evaluate the impact of its investment, and determine if there are important lessons to be learned, in the long-term, which could benefit our future programs in the Caribbean, as well as in other small state economies.

The objectives of the projects have been determined by the recipient institutions with a view to improving the socioeconomic status of the Caribbean peoples, and to supporting research for development. As each project has been implemented, it has been found that various factors have influenced its execution, and consequently the impact on the actual users, and on the ultimate beneficiaries.

It is appropriate at this time to undertake an evaluation of the projects supported by the Information Sciences Division, so that the information can be used to inform the future program in the Caribbean, and in similar regions. Specifically, this regional evaluation will be undertaken with a view to determine:

- if the objectives of the Information Sciences Division program in the Caribbean region have been successfully achieved and at what costs;
- if the specific project objectives have been or are being met;
- the impact of the information systems and services on the beneficiaries or target audiences;
- whether there are any identifiable gaps, which can be addressed by modifying or enhancing existing information systems; and
- develop a "check list" of issues/priorities to be considered by the donor community a future information activities are undertaken in the region.

Ms. Fay Durrant, who is presently a consultant to IDRC, has been contracted to undertake this evaluation exercise, and will be visiting most of the project sites between March and April to meet with project leaders, and with some of the users of the information systems supported by IDRC. The meetings with the project leaders are expected to take the form of structured interviews based on questionnaires distributed in advance. The information gathered, and the discussions with representatives of the user communities will be treated as confidential, and will provide some indication of the impact and the use of the services offered.

Attached are copies of Ms Durrant's travel schedule as well as a list of the IDRC projects in your country. I trust you will be able to meet with her, and I seek your assistance in making arrangements for her to meet with the leaders of other IDRC projects during her visit there, and providing them with the attached letters, as background information for their meetings with Ms. Durrant, and for representatives of your respective user communities.

Your sincerely,

Martha B. Stone
Director,
Information Sciences

Encls.

ANNEX VIII**ACRONYMS**

ACT	Association for Caribbean Transformation
CARDI	Caribbean Agricultural Research and Development Institute
CARDILS	Caribbean Agricultural Research and Development Institute Literature Service
CARICOM	Caribbean Community
CARISPLAN	Caribbean Information System - Economic and Social Planning Sector
CAGRIS	Caribbean Agricultural Information System
CARPIN	Caribbean Patent Information Network
CARTIS	Caribbean Trade Information System
CDCC	Caribbean Development and Cooperation Committee
CEUR	Centre de Estudios Urbanes y Regionales (Universidad Catolica Madre y Maestra (Dominican Republic))
CEIS	Caribbean Energy Information System
CTCS	Caribbean Technology Consultancy Service
DEVSIS	Development Sciences Information System
ECCB	The Eastern Caribbean Central Bank
FISMIS	Fish Management Information System
IICA	Inter-American Institute for Cooperation in Agriculture
INFOPLAN	Information System for Planning in Latin America and the Caribbean
ISD	Information Sciences Division (IDRC)
NACOLADS	National Council on Libraries, Archives Documentation Services (Jamaica and Barbados)
NLJ	National Library of Jamaica

OECS INFONET	Organization of Eastern Caribbean States Information Network
PIOJ	Planning Institute of Jamaica
SRC	Scientific Research Council (of Jamaica)
UWI	University of the West Indies